

THE CULTIVATOR.

NEW

"TO IMPROVE THE SOIL AND MIND."

SERIES.

VOL. IV.

ALBANY, AUGUST, 1847.

No. 8.

BREEDING HORSES—No. III.

As there have been but few examples of systematic horse breeding in this country, I am under the necessity of making frequent reference to the English practices. The course which has been pursued there, may be expected to produce similar results here, so far as it is followed, especially as our horses have been chiefly derived from various descriptions of English stock.

It is generally admitted that no description of horse is better calculated for light carriages on the road, than the hunter, as he existed in his truest form and best character. "To describe the hunter," says Prof. Low, "is to describe a well-formed horse, in which exists that harmony of parts which consists with the best exercise of the powers of the animal. The perfect English hunter is beyond a question the finest variety of horse that exists in any country, combining in a happier proportion than the race horse, the lightness of the horses of the warmer regions, with the strength of the ancient racers of Europe. If we compare the hunter in his conformation, with the race horse, we shall find him inferior in the characters which indicate the power of speed, but far excelling in those which show the adaptation of the animal to useful services."

The hunter is used in England not only for the chase, but for the saddle, for military purposes, as chargers,* and for the lighter carriages. Prof. Low shows where in the characteristics of the hunter should differ from those of the race horse. "The hunter," he says, "should possess a good fore end, that he may pass safely along the rough surface over which he is urged, and over the obstacles which he encounters. The low fore end and elevated hind quarters, which are suited to the power of rapid progression over a smooth surface,

would, in the hunter, be inconsistent with safety; and the tendency to ewe neck, which in the short and violent gallop of the course is admissible, would in the case of the hunter, be inconsistent with sensitiveness to the rein. The neck of the hunter should be sufficiently muscular, and his chest just so broad as to indicate strength without heaviness. The long stride of the racer not being required in the hunter, he should possess the conformation which indicates strength in the dorsal and lumbar regions, that is, he should be well ribbed home, and have the back moderately short."

Mr. Youatt says—"the body [of the hunter] should be short and compact compared with that of the race horse, that he may not in his gallop take too extended a stride. This would be a serious disadvantage in a long day and with a heavy rider, from the stress on the pasterns, and more so when going over clayey, poached ground. The compact, short-strided horse, will almost skim the surface, while the feet of the longer reached animal will sink deep, and he will wear himself out in his efforts to disengage himself. Every horseman knows how much more enduring is a short-bodied horse in climbing hills, although perhaps not quite as much so in descending them. This is the secret of suiting the race horse to his course, and unfolds the apparent mystery of a decidedly superior horse on a flat and straight course, *being often beaten by a little horse, with far shorter stride on uneven ground, and with several turnings.*"

Compare these remarks with those which describe the characteristics of the race horse.

"The race horse has been cultivated for a particular end, and the purpose of the breeders has been to call forth in the highest degree those characters which indicate the power of rapid motion. These purposes have been fulfilled, and the form of the animal answers the conditions required. * * * His length is greater than consists with perfect beauty, the power of speed having been sought for in a higher degree than that of strength and endurance. His legs are longer and his trunk smaller than the eye indicates as strictly graceful. The length and depth of the hind-quarters, a point essential to the power of making long strides, are extended to the degree of appearing disproportionate. The chest is narrow, and the fore-quarters light, a point likewise characteristic of speed. The neck is straight, rather than gracefully arched, and the pasterns are very long and oblique."

These points, although they indicate the adaptation of the animal to the purposes for which he is destined, and in this respect furnish a striking example of the art of man in controlling the animal economy—clearly show that some of the valuable properties of the horse

* A writer in the *Farmer's Library*, vol. I., page 301, states that the English cavalry, at the battle of Waterloo, were mounted on blood horses. His language is that Bonaparte, "in making his last tremendous struggle to retain the crown of France, experienced and ruinously felt the superiority of blood horses, on which the English cavalry were mounted." This statement is incorrect, as the following testimony shows. Prof. Low says—"The cavalry horse is selected from the *mixed races* of the country. They have the characters of the modern coach horse, and not the horse of heavy draught. They would have been the pride of the times of chivalry, and afford now the example of the most powerful cavalry horses that are anywhere to be found. The memorable field of Waterloo showed their importance. It is known that the lighter mounted regiments would have been overborne by the heavy-armed cavalry of France, but for the presence of the *household troops*." Mr. Youatt, in his work on the horse, observes—"A considerable change has taken place in the character of our war-horses; lightness and activity have succeeded to bulk and strength, and for skirmishing and sudden attacks, the change is an improvement. * * * There was however, some danger of carrying this too far; for it was found in the engagements previous to and at the battle of Waterloo, our heavy household troops alone were able to repulse the formidable charge of the French guard." These were the "terrible horses" to which Bonaparte alluded when he saw his own horsemen "literally rode down."

have been sacrificed. With a view to securing the object sought for, speed in the gallop, this may be to a certain extent justifiable. As is observed by Prof. Low—"strength and the power of endurance may be sacrificed for the property of speed, and even soundness of constitution to the artificial uses to which we destine the animal. Not only may these things be, but there is reason to infer that this unrivalled breed has already suffered deterioration."

And how has the hunter, which we have seen possesses a rare combination of valuable qualities, been bred? The impression, I am aware is entertained by some, that the hunter possesses no such distinctive characteristics as entitle him to be ranked in a separate class; in fact, it is not long since a gentleman, somewhat noted for his knowledge of "horse flesh," was heard to remark that hunters were never kept as stallions, and that mares intended to breed them were *always* put to blood horses. It is true that blood horses have been often, but not invariably, resorted to in breeding hunters; and it seems to be equally true as will be presently shown, that the infusion of this blood to too great a degree, has been one of the causes of the deterioration of the hunter in strength and constitution.

But in relation to the origin of the hunter, we are informed by Prof. Low, that the lighter and more agile horses of the warmer countries have been mixed in blood with the pre-existing races, so that the form of the latter has been moulded to a new standard. * * * The hunters have been mixed *not only with one another*, but with every other race which seemed fitted to give the conformation and characters required. The horses of Spain, Italy, and Turkey, nay, of Barbary and Arabia, have been resorted to. * * * The mixture of the blood of the race horse with that of horses designed for the chase, has been continually increasing, so that the characters of the *modern* hunter have been more and more approaching to those of the thorough bred horse. Yet a great distinction has hitherto existed, and ought still to be preserved between them."

To establish a race of horses of this description, is no easy thing, to be accomplished in a year or two; but a work requiring a long course of systematic breeding, continued through many generations. The noble characteristics of the hunter, as he formerly existed, are not to be produced, as some appear to suppose, by a *single cross* of the blood horse with common mares—especially at this day, when, as we have seen, the blood horse (as a breed,) has lost many of those properties which formerly imparted value to the hunter.

The diminution in England of hunters of the old standard, which has taken place from causes to which I have before adverted, is regarded by many as a serious loss. Prof. Low's observations on this point are worthy particular attention, both as showing the great value of this description of horses, and the difficulty of producing a new stock of similar and uniform characteristics. "We may be assured that the race of true hunters, if materially diminished or injured in their characters, will not without great difficulty be restored. A simple cross between a thorough-bred horse and a common mare, may produce a good individual, but this is very different from that progressive change by which a class of characters can be communicated and rendered permanent, and a true breed formed."

But the old-fashioned hunter has of late given place in the hunting field to a horse of more blood—to one in fact, possessing the principal properties of the modern blood horse; and this is regarded by some as evidence that the blood horse is better adapted to laborious exercise than the hunter. But a very different conclusion will be formed by a fair view of the whole

case. We are told by British writers that the fashion of the chase has greatly changed—"that it is now become a short and fiery gallop." To correspond with this change, a horse of different properties is chosen. Instead of the substantial kind of hunter, who could carry his rider and bear the fatigues of the chase for a whole day, a lighter animal, with more speed for a short distance, but with far less strength and capacity for endurance, is used; so that two horses are now required to perform the work which one did before. Prof. Low informs us that—"it is now common to have *relays of horses*, so that a sportsman may mount a fresh one when the first is exhausted." Again, he observes, in regard to these changes in the fashion of the chase,—"it is to be feared that refinement has been carried to its limits. The rapidity of the chase has been carried to a degree that assimilates to the sport of a race, animating, certainly, to the highest degree, but differing in the feelings which it excites, from the legitimate exercise of the hunting-field. The effect begins to be perceived in the character of the horses employed, which, in the great hunting counties, are manifestly tending to a lighter form than ought to characterize the hunter." EQUUS.

ELECTRO-CULTURE.—Much was said a year or two since, and high expectations raised, relative to accelerating the growth of vegetables by electricity. Plats of ground were encircled by wires buried beneath the surface of the soil, and connected with upright pointed conductors, for stimulating the growing plants,—the operator forgetting that the moist soil, being a free conductor of electricity, dissipated in a moment every particle of the fluid that came down the rods, and not reaching the plants; and also forgetting that if the soil were not a conductor, the electricity thus brought down could never reach them;—two conflicting absurdities thus lying at the very threshold. Extraordinary expectations were also raised by the occasional observance of the great luxuriance of some plants at the foot of lightning rods—resulting from growing in the deep bed of mellow soil made by digging the hole for the lower end of the rod.

Accurate scientific experiments have been lately made under the supervision of Professor Solly, of the London Horticultural Society, which set the matter finally at rest. A large and powerful cylinder electric machine was used, and the plants, in pots, within doors, were kept heavily charged, four hours each day, for four weeks; and although the experiment was varied in many different ways, not the slightest influence could in any case be perceived, either favorable or detrimental to vegetable growth. The plants operated upon, several pots of each sort being taken, were young French beans; young plants of the common scarlet geranium; plants of the strawberry; seeds of wheat; and seeds of mustard and cress. Experiments were afterwards made in the open air, on a number of different plants, and the machine worked four hours each day for nearly six weeks, but not the slightest difference could be observed between those electrified and those not.

LARGE CORN.—A correspondent of the Southern Planter describes a field of corn which he saw on the farm of W. Gilmer, 6 miles west of Charlottesville. It was in drills five feet apart. "We rode through it; but it was more laborious than riding through a thicket of woods; for though we went in the widest row we could find, it was difficult to keep the blades and stalks from dismounting me. The tassels were beyond the reach of my cane, and I on horseback." The land was the richest alluvial flats. From 20 to 40 barrels per acre were harvested from it.

DAIRY MANAGEMENT.

In our August number of last year, we gave some account of the dairy and farm of Mr. B. H. HALL, of New Lebanon, Columbia county, N. Y. Mr. H. received the first premium of the New York State Agricultural Society, last winter, for the best butter dairy. We congratulate him on his success, and are confident it is deserved. There are but few farms and dairies in the country which are managed more economically and profitably than Mr. HALL's. He commenced operations under circumstances which would have discouraged many men, but which have been completely overcome by his energy and perseverance. A gentleman who has long been well acquainted with Mr. H., observes, in relation to his course of farming—"His has been a *venture* which few but a *gentleman* farmer of wealth would have dared to undertake. I recollect well the predictions of many, that 'hiring so much help' would ruin him; but what has been the result? While they have jogged along in the old way, little more than paying their expenses, he has, by the addition of labor, rendered the nett income of his farm double that of any one in town, of the same number of acres.

"The fear of the expense of labor, is the rock on which many of our farmers have been stranded. They will only hire help enough to raise just sufficient for the wants of the family, leaving no surplus to lay up for a *wet day*, never thinking that an additional hand for six or seven months, would add, if judiciously employed, fifty per cent to the productiveness of the farm, and then leave a handsome sum to be laid by at the end of the year. It should be impressed on the minds of farmers that the principle of the success of our large manufactories, is the over production beyond the support of the families engaged in them. Hence, if they only do just enough for their support, there can be no income."

We copy from the *Transactions*, Mr. HALL's statement, as follows:

My farm is located in the valley of New Lebanon, Columbia Co., in about 42½°; contains about 180 acres of improved land, which is composed of a variety of soils, viz: an alluvial clay loam on the flats, (about one-third of the whole,) which are generally kept in meadow. The other portions are gravel loam and slate and gravel, with the exception of some twenty acres, which are wet clay and gravel pastures, with a hard subsoil, bearing the variety of grasses usual on wet pastures. The other pastures used, are plowed and cropped in their rotation, say two years in every five, and are stocked with clover and herds grass. Hay used, clover and herds, with a slight mixture of red top on the low grounds.

My dairy is composed of 16 cows; 3 three years old heifers, and two two years old. Cows of native breed, one full blood short-horned heifer, the others half bloods; the full blood heifer suckled her own calf and another, a half blood, through the season. One of my best cows lost her udder before the 1st of August, by the kine-pox, which disease very much injured the whole dairy for about five weeks. I also parted with one cow the last of September.

Estimating the four heifers to be equal to three cows, I had no more than nineteen cows through the whole season. Add to this the hottest weather ever experienced for the same length of time, and a severe drouth for some five weeks, and I believe I have enumerated all the disadvantages under which I labored.

The feed of the cows was hay, grass, and dry corn stalks, with the exception of 30 two-horse wagon loads of pumpkins. The product was as follows:

3,189 lbs. of butter, sold in the Boston market, at an average price of 19½ cents per lb., which price perhaps is a fair criterion by which to judge of its quality,	\$621 84
20 calves sold and two raised,	91 50
Cream and milk used in a family of ten persons, at 15 cts. per day,	54 75
Skimmed milk and buttermilk fed to the hogs 215 days, at \$1.30 per day,	279 50
	<hr/> \$1,047 59

The average quantity of milk from each cow per day, for 215 days, 26 lbs. Aggregate quantity for each cow, 5,590 lbs. Quantity of butter to the 100 lbs. of milk, 3 lbs. 3 oz. Gross quantity of milk and butter, 109,395 lbs.

Method of making.—Room used, kept as near a temperature of 60 degrees as may be.

Milk strained into a large can placed in the milking yard, which adjoins the milk room, inside of which it is drawn by means of a conductor and faucet into the pans, usually about eight quarts in each pan; it is drawn over ice placed in the can whenever the temperature requires, consequently the cream rises in much less time than when cooled in the ordinary way. It ought to stand 36 hours before being skimmed, but this time must be varied occasionally, as the weather changes. It should be skimmed when the milk is slightly changed, and before it is coagulated. The cream is put into stone jars and placed in a refrigerator in contact with ice, until it is churned, which is done every second or third day. Churn used, a circular one with revolving arms or paddles, framed into a shaft of wood; cream should never come in contact with iron. The motive power is a platform wheel turned by a small horse. The butter is salted with ground rock salt, passed through a fine sieve, that there may be no lumps or particles that will not dissolve. (How often have you had your teeth set on edge by coming in contact with a lump of salt, in otherwise good butter?) It is salted to suit the taste, and the market, (which requires it very mild unless it is designed for keeping a longer time than usual;) it is then placed in the refrigerator and kept cool until it is taken out, worked on an inclined table with a break, packed in new tubs containing 25 lbs., and sent to market, which is done every week, always using ice in every part of the process, the weather requiring it.

The committee will be better able to judge of the value of the milk and buttermilk, for hog feed, when I state that I have sold pigs, pork, and lard, to the amount of \$1,063.09, at an expense of \$667.00, for purchase money and feed, other than milk, and that my hogs have made, of the feed and materials given them to *work*, near 300 half-cord loads of manure, *the value of which every farmer ought to know.*

.....
DAIRY STATISTICS.—The committee appointed by the Society to award premiums on butter dairies, of which Hon. Mr. DENNISTON was chairman, appended to their report some interesting statistics, showing the great value and importance of this department of husbandry. We invite attention to their remarks, which we herewith copy:

The committee would ask indulgence for a few moments to remark, that butter dairies constitute the most valuable agricultural interest in this state, and cannot receive too much of the fostering care of this society.

In looking at the returns of the last state census, the article of wheat appears, at the first view, to be the most valuable crop produced in the state.

The number of bushels raised in one year, is given at 13,391,770, which, at 90 cts. per bushel, which is believed to be a fair average price in all parts of the state for several years together, yields \$12,052,593.

The quantity of butter made during the same year, was 79,501,733 pounds, which, at twelve and a half cents per pound, which is believed to be a similar fair average price, yields \$9,937,716.

To this may fairly be added, for increase of the butter dairy, as follows:

There were milked the same year, 999,490 cows, of which number three-fifths at least, it is estimated, were appropriated to butter dairies, and the remainder to cheese dairies. Three-fifths of the whole number would be 599,685, which would yield say 500,000 calves, after throwing away the 99,685 for casualties, and in conformity to a custom which prevails in some places, of killing them when one or two days old—enough, the committee think, to warrant them in saying that the increase of the 500,000 cows, in the shape of veal and calves raised, would be equal to two dollars per head, which would give \$1,000,000.

There were the same year 1,584,354 hogs, worth doubtless upon an average, three dollars per head, one-third of which number may be considered as raised annually by the milk from the cows used for butter dairies. One third of the whole number is 528,114, which at three dollars each, is \$1,584,342. The whole may be summed up as follows:

79,501,733 lbs., butter 12½ cts. per lb.,..	\$9,937,716
Increase of 599,685 cows, after deducting	
the 99,685 for casualties, &c., as above,	
say 500,000, at \$2 each,	1,000,000
528,114 hogs, at \$3 each,	1,584,342

Total,	\$12,522,058
The crop of wheat, as above, deducted,..	12,052,593

Leaving a balance in favor of the butter crop, of \$469,465

If the committee have estimated the increase from the cows too high, or if they have put down too many hogs as the product of the butter dairy, either or both items may be much diminished, and yet leave a balance in favor of the butter crop.

Another advantage of the butter dairy over the wheat crop, consists in the cost of labor of production and transportation to market. The labor of females and boys is used mainly in the milking of cows and making the butter, which is cheaper than the labor required in plowing, sowing, and threshing the wheat, and carrying it to market.

The cost of transportation to market is greatly in favor of the butter dairy.

Forty firkins of butter and three tons of pork would be considered a good crop from a very considerable farm, and yet this quantity would not make more than five or six two horse wagon loads, while six hundred bushels of wheat, the product of a moderate farm, would make twenty wagon loads, and the cost of railroad or canal transportation would show a similar inequality.

Moreover, the process of grazing in making the dairy crops, continually fertilizes the soil, and in this respect it exhibits a decided advantage over the wheat

crop, as the process of plowing gradually wears upon and reduces its fertility.

The butter dairy is also very uniform and reliable, while the wheat crop is subject to many contingencies.

The above calculations are not claimed to be quite accurate, but they are believed to be sufficiently so to show that the butter dairy is the most valuable farming interest in the state, and worthy the most favorable regard of every friend of agriculture.

PROPORTION OF THE AMERICAN POPULATION ENGAGED IN AGRICULTURE.—HON. ELISHA WHITTLESEY, in an address before an agricultural society in Ohio, gives the following statistics in relation to the number of persons engaged in different occupations in this country, from which it appears those engaged in agriculture outnumber those engaged in the learned professions, navigation, manufactures, and commerce, more than three to one; and the annual value of agricultural products is upwards of 650,000,000 of dollars:

No. of persons in the learned professions,	65,255
“ “ internal navigation,...	33,076
“ “ navigating the ocean,...	56,021
“ “ manufactures,	791,749
“ “ commerce,	117,607
“ “ agriculture,	3,719,951

The annual value of agriculture is,.....\$654,387,579

The value of importations for the fiscal year, ending on the 30th of June last, was,..... 121,691,797

The value of exportations, domestic and foreign, for the same period, was..... 113,488,516

Amount of imports and exports,\$235,180,313
which is some over one-third of the value of our agriculture.

SALT NOT A PREVENTIVE OF THE POTATO DISEASE.—THOS. W. WARD states, in the *Massachusetts Plowman*, that he has tried salt for potatoes by putting it on the hill at planting time, both before and after the potatoes were covered. He could not perceive that it did in the least prevent or check the rot; but when the salt was put on before the potatoes were covered, “it very much retarded the coming up of the potatoes, —some of the hills being a week and more behind their neighbors where no salt was put; nor did it prevent the mouldering of the leaf and the decay of the top.”

Prof. JOHNSTON, in some remarks on the potato disease, in a late number of the *Edinburgh Quarterly Journal of Agriculture*, observes—“It has been said, in some parts of Scotland, that the disease was prevented by the use of saline mixtures, in 1845, but the same mixtures failed of their effect in the hands of the same parties in 1846. At the present moment, sulphate of magnesia is lauded as a specific against the disease, because of some supposed good effects produced by it near Whitby, in 1846. I fear, however, that should the disease be equally virulent and extensive in 1847, this salt will lose its character like all the others.”

SUCCESSFUL SUBSOILING.—Henry Colman says, that Smith of Deanston, when he commenced operations, about 20 years ago, had on a part of his farm not more than four or four and a half inches of surface soil; but having applied the system of thorough draining, and used the subsoil plow, he can now turn up more than 16 inches of good soil. Subsoiling had failed in some parts of England, where very heavy clay and quicksand prevailed. In one case there was a crop of 35 bushels of wheat per acre, where the subsoil furrows were across the drains; and only 27¼ bushels where they were parallel with the drains

MICHIGAN AS AN AGRICULTURAL STATE.

MESSRS. EDITORS—Having been a subscriber to the *Cultivator*, as well as a constant reader, since its commencement, I feel in some sort entitled to claim a place in your columns. At a time when so much attention has been attracted to western lands, as is shown by the great and increasing emigration from the Atlantic states, and when much and intentional misrepresentation exists, I purpose to send you a few observations on the agricultural capabilities of Michigan. These are designed not so much to create a favorable prejudice in behalf of my adopted state, as to exhibit, in a just light, the distinctive characteristics of the eastern and western states, and in particular of that one of the latter which has been the subject of perhaps both extremes of misrepresentation. I am encouraged to this by the opinion that your journal is one of that extended circulation and liberal character which invites information from all parts of our varied country.

I commence, then, with some observations upon the GENERAL CHARACTER OF THE LOWER PENINSULA OF MICHIGAN.—One of the most striking features of Michigan, is the great extent of water by which it is surrounded. The chain of great lakes form a peninsular coast of more than 1,200 miles, which is supplied with an uncommon number of good harbors.

The latter are due, mainly, to the unusual volume and depth of the streams, some of which are navigable for river steamboats for more than 100 miles from their mouths. On the western coast, these streams generally expand into lakes just within the bar at their mouths, many of which are sufficient in size and depth to float a navy. It will at once be obvious that these features afford the peninsular state a more ready and cheap access to markets, from every part of the interior, than any other equal extent of territory in the union.

Michigan is also furnished with an unusual number of small interior lakes, which cover a proportion of her surface equal to one acre in thirty-nine.

The fact is well established that climate depends less on latitude than on the conformation of the surface and the relative position of land and water. The great inland lakes of the northern frontier of the United States, as they are one of the most striking characteristics of its physical geography, so they give rise, in connection with some other features, to the most remarkable modifications of climate. It is not my purpose to discuss the causes of this phenomenon, but simply to exhibit facts; and that these may not appear to be mere hypothesis, let us appeal to an acknowledged authority—the thermometer. Dr. Forrey, author of a work on “the Climate of the United States,” comparing the observations taken at the different military posts of the United States, remarks, that “at the posts on large bodies of water, the mean temperature of winter is higher, and that of summer lower than in the opposite localities. Thus, Fort Brady, at Sault Ste. Marie, shows a difference of only 42 degrees 11 minutes, between the mean temperature of winter and summer, while Hancock Barracks, half a degree further south, in the state of Maine, distant only 150 miles from the sea coast, exhibits a difference of 46 degrees 19 minutes, and comparing the warmest and coldest month, the difference of the former is 47 degrees 22 minutes, and that of the latter 54 degrees 70 minutes.” Again, “so remarkable is the influence of

large bodies of water in modifying the range of the thermometer, that although Fort Brady is nearly 7 degrees north of Fort Mifflin, near Philadelphia, and notwithstanding the mean annual temperature is 14 degrees less, yet the contrast in the seasons of winter and summer is not so great at the former as at the latter.” During a residence of eleven years on Detroit river, the extreme lowest point of the thermometer was 12 degrees below 0, while in central New-York the thermometer several times, within the same period, sank to 35 degrees below.

Winter in Michigan lasts from three to four months, during most of which the ground is covered with snow, to the depth of from one to two feet. During eight months of the year cattle will find subsistence for themselves, in the woods and plains. The ground is fit for the plow about the 20th of March, and frequently much earlier. About harvest, which is in July, there is very commonly a period of several weeks duration, during which scarcely any rain falls. This circumstance, though often prejudicial to some crops, is of advantage to the wheat grower, enabling him to harvest that staple article with the least labor, and free from rust.

I do not remember to have seen this fact alluded to, as among the characteristic advantages of Michigan, as a wheat producing state, but it deserves to be.

The prevailing winds, for at least four days in five, throughout the year, are west or south-westerly, and these are almost invariably attended by pleasant weather. The north and east winds are sometimes attended by cold storms, but never of so long duration as on the Atlantic coast. Showers come from the west or southwest; last generally but a few hours, and are most frequent in the night. These facts, added to the usually mild character of the westerly winds, and the effect of the surrounding waters in equalizing the temperature, give to Michigan an uncommon proportion of clear days, and a climate more than ordinarily free from sudden and great variations, and from long periods of cold wet weather. In short, they produce that happy medium between extremes, which is the most healthful and desirable.

The autumns are commonly mild and protracted; the season of Indian summer, which lasts from two to six weeks, being one of the most soothing and delicious known under any parallel on the globe.

To these favorable features there is frequently a drawback in the variable weather of spring. This is subject to frosts, occurring sometimes in April or May, several weeks after the orchards are in bloom, and which greatly impair if not destroy the prospect of fruit for the year. This calamity occurs about as often as once in four years.

Another most important feature of Michigan, is the character of her soils. While in the more broken districts of the eastern states the soils are in great part derived by decomposition from the underlaying rocks, are usually of little depth, and in the primary districts, (which include most of New England,) of sterile character, those of Michigan are made up of the relics of previously existing rocks, or of the rocks of distant portions of the country, which have been broken up and spread over the surface, by widely operating geological causes. Whatever these may have been, it is sufficient for our present purpose to say, that they have covered the rocks of the peninsula with a deposit, varying from one to 100 feet in depth, consisting of sand

gravel, and water-worn masses, from a great variety of rocks, with occasional local beds of clay.

The peculiarities of the soils thus constituted, are, first, their extreme depth, and loose, gravelly texture; permitting the copious absorption, retention, and percolation of rain water, and giving rise to great abundance of springs, streams, and lakes; allowing a wide range for the roots of plants; rendering the soil easily arable, and less susceptible to the effects of drouth. Secondly, the fertile nature of the materials. Limestone being one of the most abundant rocks of the peninsula and the adjoining lake country, *lime* constitutes a large ingredient in those soils; the abundance of that mineral being apparent, not only as a constituent of the soil, but in numerous and extensive beds of marl. To this fact, in an eminent degree, is to be attributed the superior adaptation of the soils of Michigan for *wheat*; that grain, as is well known, demanding a large supply of lime.

The trap rocks, which exist to a great extent in the region of lake Superior, also furnished a large proportion of the constituents of this deposit, and these rocks are known to produce some of the most fertile soils on the globe. To this character of the soil is added a rolling surface, with sufficient descent from the higher grounds, (which are about 600 feet above Lake Erie,) to give rapidity to the streams, and furnish a vast amount of water power.

These characteristics, in connection with some already alluded to, tend to give a salubrity to the climate which is not found to an equal extent in other parts of the Mississippi valley. Probably no new country is more free from prevalent diseases than those parts of Michigan which have not been rendered unhealthy by artificial agency. The unusual number of mill dams, which are not unfrequently made to flood large tracts covered with timber, are rendered by the haste and imprudence of settlers, a chief source of febrile disease, and have helped to give erroneous impressions of the true character of the country.

None of the new states have been more fortunate than Michigan in the character of its inhabitants, most of whom are thrifty and intelligent farmers and capitalists from the eastern and middle states. The amount of capital expended in public improvements, roads, and mills, since 1836, equals that of many parts of the United States which have several times its population. Yet the annual surplus of its great staple, for exportation, much exceeds its capabilities in that particular. With a population of 300,000, the wheat crop of the last two years probably exceeds 15,000,000 of bushels; a proportion greater by at least one third, than that of any other state in the union. The average yield of wheat may be stated at 20 bushels per acre, and the price per bushel at from 50 to 80 cents. The price of unimproved lands varies from \$1 to \$5 per acre; that of improved farms from \$5 to \$20. From these data my eastern readers may calculate for themselves the comparative profit of farming here and with them.

The advantages of Michigan as a wool-growing state are beginning to be appreciated. The surface, broken into gentle hills and valleys, is covered with a spontaneous growth of grasses, which are relished by sheep and cattle, and will alone furnish them sustenance for at least eight months in the year. The export of wool from Detroit alone in 1844, but a few years from the first introduction of sheep into the state, was 236,000 lbs. Since then, the hills and meadows of many parts of the state have been covered with fine flocks.

All the varieties of fruit which ripen in the eastern and middle states, are found to flourish luxuriantly in Michigan. Many plants and fruits which belong to much lower latitudes, are either found growing here

naturally, or are easily acclimated. It is an evidence of the mildness of the climate that the sweet potato and tobacco plant are cultivated successfully in many parts of the state. The apples, pears, and plums, produced by the orchards upon Detroit river, though little pains have been taken in their cultivation, are not surpassed for flavor and vigor in any part of the world. Peaches are raised in great perfection throughout the state, though liable occasionally to be cut off by late frosts in spring.

Pine and oak lumber constitute a large and increasing article of export. Ohio and Illinois are principally supplied from this source, and a hundred millions of feet are annually exported to all the neighboring states, and to New-York.

The extensive coasts abound with fisheries of white fish and salmon trout, esteemed the finest of fresh water fish, and which constitute a valuable item of export.

The lower peninsula of Michigan is very generally surrounded by a belt of timbered lands, embracing the greater part of the border counties. On the eastern side this tract rises gradually from the water, presenting a somewhat level surface, and is frequently flat and wet. On the western side the surface is more broken, and the soil more gravelly and dry. Throughout a large portion of the interior, and occasionally amid these timbered tracts, occur openings and plains, with some small prairies.

If the above remarks are favorably received, I propose in two succeeding communications, to describe these two classes of lands, into which Michigan may be considered as mainly divided, viz., oak openings, and timbered lands.

BELA HUBBARD.

Detroit, May 4, 1847.

A RURAL PICTURE.

(By MICHAEL BRUCE—published in 1770.)

Now sober Industry, illustrious power!
Hath raised the peaceful cottage, calm abode
Of innocence and joy: now, sweating, guides
The shining plowshare; tames the stubborn soil
Leads the long drain along the unfertile marsh;
Bids the bleak hill with vernal verdure bloom,
The haunt of flocks; and clothes the barren heath
With waving harvests and the golden grain.

Fair from his hand behold the village rise,
In rural pride, 'mong intermingled trees!
Above whose aged tops the joyful swains,
At even-tide descending from the hill,
With eye enamoured, mark the many wreaths
Of pillared smoke, high curling to the clouds.
The streets resound with Labor's various voice,
Who whistles at his work. Gay on the green,
Young blooming boys, and girls with golden hair,
Trip, nimble-footed, wanton in their play,
The village hope. All in a reverend row,
Their grey-haired grandsires, sitting in the sun,
Before the gate, and leaning on the staff,
The well-remembered stories of their youth
Recount, and shake their aged locks with joy.

How fair a prospect rises to the eye,
Where beauty vies in all her vernal forms,
For ever pleasant, and for ever new!
Swells the exulting thought, expands the soul,
Drowning each ruder care: a blooming train
Of bright ideas rushes on the mind,
Imagination rouses at the scene;
And backward, through the gloom of ages past,
Beholds Arcadia, like a rural queen,
Encircled with her swains and rosy nymphs,
The mazy dance conducting on the green.
Fat on the plain, and mountain's sunny side,
Large droves of oxen, and the fleecy flocks,
Feed undisturbed; and fill the echoing air
With music grateful to the master's ear,
The traveller stops, and gazes round and round
O'er all the scenes that animate his heart
With mirth and music. Even the mendicant,
Bowbent with age, that on the old gray stone,
Sole sitting, suns him in the public way,
Feels his heart leap, and to himself he sings.

THE FARMER'S NOTE BOOK.

FENCE POSTS.—Some ten years since, I introduced into this place, a kind of fence posts then new here, which are becoming pretty generally in use in this vicinity, for door-yard fences, and which, economy and durability considered, are believed to be among the best. I have thought that a description of it might be useful to some of the readers of the "Cultivator."

It is formed by taking a stone $2\frac{1}{2}$ feet long, 12 or 15 inches wide, 4 to 6 inches thick. A hole is drilled, 2 inches deep, about 5 inches from the front end, to admit a dowel, and one 20 inches from the first for the foot of a brace. A piece of scantling, 4 or 5 inches square, of a length to correspond with the height of the fence, is placed upon the stone and connected with it by a short dowel, and secured by a brace formed of half-inch round iron. Melted lead or brimstone will secure the end of the brace inserted in the stone, and a two inch wood screw or spike that connected with the post. The brace should form an angle of about 45 degrees. Where a gate is wanted, it is well to have one stone sufficiently large for both gate-posts. A small piece of iron resembling a screw-nut, should be placed on the dowel, between the end of the post and the stone, that the post may be kept dry. The posts being thus kept from the ground, and well painted, their durability will be apparent to all. Another advantage is, especially on clay soils, the fence will keep its position much better than where posts are placed in the ground. If the stone are well levelled and bedded in the first place, the fence will remain perfectly straight year after year,—the frost not affecting them in the least, excepting a few days in the spring when the ground is thawing. Should a close board fence be wanted, it would be best, perhaps, to have the stone somewhat larger, and the braces a little longer; but for ordinary open fences, those above described will be found sufficiently large. GEO. HAPGOOD. Warren, Ohio, June 22, 1847.

THOROUGH PREPARATION OF THE SOIL FOR CROPS.—I notice an article in your June number on the value of thorough preparation of ground for crops. I will make a remark, that one extra full working of ground, is worth at least 20 loads of common farm-yard manure, say 200 bushels per acre; (bushels are my choice in regulating manure on land, over loads;) and I think two extra plowings, if well done, worth 400 bushels manure. I do not at this time, remember ever to have seen land that was properly prepared, much injured with the usual mishaps of the farmer. What I call a full preparation for wheat, is to plow your land as *shoal* as you can, say from two to four inches; then pack with a roller, and after remaining in that state for some two or three weeks, to harrow well, say two, three, or five times in a place, according to the quantity of grass on the sod turned down; then in a week, to give a *cross plowing*, which is to go full as deep as the first; then harrow with large teeth as deep as you can; drive them in the ground seven or eight inches. My object is, never to expose over $1\frac{1}{4}$ to 4 inches of the earth to the action of sun and air, unless you allow me a large amount of manure, when I would go deeper. Just before sowing my crop, I like another plowing. I have some eight or ten acres of land, which I worked two years in wheat, and neither year was the preparation such as I liked; and last fall, I determined to use every effort to have it prepared, and I worked it fourteen times; and this crop is the best of the three, so far, save about

one and a half or two acres, which is of a heavy nature, and I did not get it so well water furrowed as I had it the first year. This time three years, on one edge of this cut, I put six or eight loads, (with extra sides to the cart—36 to 40 bushels,) of the rough manure from my barn-yard, and spread it on the grass. Farmers coming into the field, wanted to know the cause of the grass being better there than on the the adjoining land. The manure then applied covered 12 corn lands, say 4 feet wide, and some 300 or 400 long. After the ground was plowed for wheat, I manured all alike; plainly to the row did that coarse stuff show, and still shows in this crop, which has fixed me in the use of such manure. I have some eight or nine acres dressed as above, for wheat this fall. M. GOLDSBOROUGH. Trappe, Md., June 10, 1847.

DRAINING.—With reference to draining in soils abounding with ferruginous matter, (alluded to at p. 111 of the present volume,) in the south of England it was found that when sea beach, that is, gravel from the sea shore, was used for filling up the drains, they did their duty, but either stones or chalk used for the same purpose, would be cemented into a mass, and close them.

POULTRY.—I frequently see remarks on poultry. I fancied in the old country, that I had discovered hens to save early and late broods of chickens, and I remember having 76 of the size of pigeons, in the month of October, besides innumerable others for the small stock of a dozen hens. In the old country, however, the hens breed three, and not unfrequently four times yearly. Moulting time commences in England about the second week in July. I was therefore particular to have the early broods strong enough to bear the loss of their feathers; later broods I was careful should not be hatched until about the 14th July, that they might escape the penalty of moulting. I never lost any in the fall of the year at blackberry time, when numbers die off, it is said, from eating this fruit. I, however, attributed the loss of chickens to their moulting. I seldom lost any from the gapes. When I did, I had invariably detected them previously straying into the geese pen. In the manure of these birds, a small green worm generates, which I considered as poison to the young chicken, and one cause of the gapes.

In kept in open yard, fenced against ingress, having a shed and plenty of water at command. In farm-yard manure, immense quantities of small red worms generate, which are easily accessible to chickens. I set the hens at liberty from the coops in a few days, but they had to be watched from wandering, fed sparingly with wheat scraps, frequently only twice daily, for when insects and worms are plentiful the chickens will feed themselves, and I had no difficulty in raising a large stock. I attributed my success to watching the moulting time, and keeping the chickens when young from the geese pen.

HEMLOCK OFFENSIVE TO VERMIN.—I believe it would be found that hemlock timber, if used for granaries, &c., would not be infested with rats and mice; the wood being hateful to them.

LIMING LAND.—The application of lime to land, as described by Mr. HAINES, (p. 175,) as being practised in Morris Co., N. J., so exactly assimilates to that of some of the midland counties in England, that I would have fancied that Mr. H. had been a Severn-side farmer. Fifty bushels of lime per acre, and no

more, may sound as being a small quantity, when applied at twice, to produce lasting benefit to land, since we know that other quantities may be laid on *ad libitum*. To account for this difference, it may be sufficient to notice that in all probability, the lime of Morris county is made from the *manganese* rock. The only article on the manganese lime that I remember perusing, was a pretty long one in "Marshall's Midland Counties," I think, in describing the husbandry of Derbyshire.

SUBSOIL PLOWING, p. 196.—I have invariably noticed that in sinking wells, a stratum of blue marl, of the thickness of two or three feet, is met with above the springs. Might not Mr. GILLET be indebted to the marl for his 22 inch corn. Would he test the earth with an acid, to ascertain if it were so? A. M. Toronto, C. W., June, 1847.

.....

FISH FOR MANURE.—J. G. CHADSEY, obtained a premium of the Rhode Island Society for the Encouragement of Domestic Industry, for a series of experiments in relation to the use of fish as manure. He states that he has used fish for this purpose eight years in succession, with the exception of one year. His mode of using them is by making them into a compost with muck and soil. For field crops, he allows five barrels of fish to a cord. For roots, he adds to the heap ashes and rock-weed. One spring, when digging over his compost, he mixed two casks of lime with a part of the heap, and tried it by the side of that which contained no lime. No difference was perceptible in the crop the first season, but he thought the lime "showed itself" the second season. The application of fish in a "green state" to the surface of grass land, he does not approve, believing it to be a wasteful method, "as the atmosphere gets more than the soil," and the effluvia is very annoying to the neighborhood. Both wet and dry soils, he says are benefitted by the fish compost, but he applies it mostly to dry lands. He states, however, that it is quick in its action, and of short duration. He proved this by an experiment. In 1840, he divided a piece of land into two equal parts; on one part he put eight cords of fish compost per acre; on the other part he put an equal quantity of stable and hog-pen manure, mixed together, plowing in the manure on both parts. The two lots were planted to potatoes. At harvest, the crop was judged to be fifteen per cent. best where the fish compost was used, and the potatoes were also fairer and better. After the crop was dug, he sowed the lots to rye and grass-seed, without manure, and in 1841 he harvested over thirty bushels per acre; but the crop was judged to be twenty-five per cent. the best on the portion manured with the fish compost. In 1842, the scale began to turn. The two lots were in clover and herds-grass, (timothy,) but the crop was in favor of the stable and hog-pen manure by fifteen per cent., and the two following years the part to which the fish compost had been applied, produced scarcely anything but sorrel, the clover and grass being nearly all dead, while the other part continued to produce good crops of hay. In 1845, he broke up the field and planted it to corn; the whole being manured alike; the crop ten per cent. best on the part where the stable and hog-pen manure had been put. The next year, 1846, the field was planted to potatoes, and the yield was alike on the two portions. From this experiment, extending through six years, he concludes that fish manure, though highly valuable from its cheapness and fertilizing effects, is chiefly absorbed by the first crop, and does not affect the soil after the third year from its application.

It may be proper to remark that the fish alluded to are a species caught in immense numbers along the shores of Buzzard's Bay, Long Island Sound, and per-

haps other places. They are not considered of any value except for manure.

.....

INFLUENCE OF THE RHUBARB PLANT IN PRODUCING GRAVEL.—The fourteenth number of Braithwaite's Retrospect of Practical Medicine and Surgery, contains an article on this subject which is calculated to alarm those who indulge in the pies and tarts made of this palatable plant. It seems that it furnishes the material of one of the most painful and dangerous diseases to which the human system is subject.

The substance of the article is briefly this:—The young stalks of rhubarb contain oxalic acid, and hard water contains lime; and consequently those who eat articles of food made of the plant, and drink such water, are introducing into their system the constituent ingredients of the mulberry calculus, which is an oxalate of lime; and if they are dyspeptic, and unable to digest the acid, "are very likely indeed to incur the pain and the exceeding peril of a renal concretion of that kind." "The oxalate was found in three out of four after eating the rhubarb."

This, it must be admitted, is rather startling. The mulberry calculus is the most painful form of the concretion of the kidneys and bladder. The rhubarb plant has come into extensive use, and is generally considered a very wholesome article of diet. If the danger of using it is as great as is represented in the Retrospect, it should be universally known. Indeed, there would seem to be reason to infer that the danger is not confined to those who use limestone water, for the acid will probably combine with other bases as well as with lime. The presence of oxalic acid in the plant, perceptible to the taste, would lead one to conclude, *a priori*, that the ascribed effect would result from its use, whenever it is not decomposed by the stomach, which seems to be the case in the greater proportion of instances; and the experiments leave little room to doubt its agency in the production of oxalate gravel in the urine. J. G. C. York, Pa., June, 1847.

.....

FIXING AMMONIA.—The May number of your excellent periodical is before me, but contains no explanation of the "apparent discrepancy," noticed in your April paper, under the head of fixing ammonia. Lest so interesting a matter should pass unheeded, I will venture an illustration. Gypsum is not, as your correspondent supposes, a super-sulphate, but is strictly a neutral salt. The table he quotes, was propounded by Geoffry, an old chemist, and was suggested by the fact that a combination of any of those bases (alkalies or earths) with sulphuric acid, is decomposed by the addition of any base occurring before it in the table.

To be fully understood, I copy the table "of the affinity which certain bodies have for sulphuric acid," viz:—

Sulphuric acid.—1. Barytes; 2. Strontia; 3. Potassa; 4. Soda; 5. Lime; 6. Magnesia; 7. Ammonia.

Now, if we add magnesia to a solution of sulphate of ammonia, the magnesia combines with the sulphuric acid, and the ammonia is set free. Lime, again, will take the acid from magnesia, and baryta will surmount all other affinity to obtain the acid.

"But it is now known," says Dr. Draper, in his Text-Book of Chemistry, pp. 167 and 168; that these tables are far from exhibiting the order of affinities; a weaker affinity often overcomes a stronger, by reason of the intervention of disturbing extraneous causes; and tables so constructed, lead, therefore, to contradictory conclusions. Some very simple considerations may illustrate this. Potassium, (the metallic base of potash,) can take oxygen from carbon at low temperatures, or in other words, decompose carbonic acid gas, but it by no means follows that the affinity of potassium for oxygen is greater than that of carbon,

and accordingly we find that at higher temperatures carbon can take oxygen from potassium. Indeed, under the influence of heat, light and electricity, we find all kinds of chemical changes going on; and in the same manner the condition of form exerts a remarkable influence in these respects, so that cohesion and elasticity may be placed among the predisposing causes producing chemical results. If a number of bodies exist in solution together, they will at once arrange themselves in such a way under the influence of cohesion as to produce insoluble precipitates, if that be possible; or, under the influence of electricity, to determine the evolution of a gas. We have, therefore, no true measure of affinity, for the relation of bodies changes in this respect with external conditions, and the tables of Geoffroy are only tables of the order of decomposition, and not of the order of affinity." Certain phenomena observed by chemists tend to show that when a number of salts, as for example, sulphate of lime, (gypsum,) and carbonate of ammonia are dissolved together in water, there occurs a division of each acid between the two bases, and of each base between the two acids, so that at first there exists in solution sulphate of lime, sulphate of ammonia, and carbonate of ammonia, while carbonate of lime being nearly insoluble, separates. But the carbonic acid attracts a new portion of lime to keep up the division; this it must obtain from the gypsum, its acid in turn combining with the ammonia; the carbonate of lime separates, and thus the process goes on till all the lime is converted into carbonate, and the ammonia into sulphate.

It is quite probable that all the beneficial effects of gypsum cannot be ascribed to its power of fixing ammonia, as it in many instances serves directly for the food of plants; and also exerts some influence on the mechanical texture of the soil. According to Dr. Fresenius, certain salts, as sal-ammoniac, glauber salts, (sulphate of soda,) and common salt, render gypsum more soluble than it is alone, probably from the decomposition of a portion of it, and the formation of more soluble compounds, according to the principle of the distribution of acids and bases. Since one part of gypsum requires 430 parts of water for solution, its application may not be beneficial to a great extent in dry situations; from this, also, results its durability as a manure.

It is obvious that upon soils which are already supplied by nature, its further application would be injudicious.

The fact that gypsum acts effectually in fixing ammonia, may be rendered evident by comparing the odor of two vessels containing urine, (into one of which a portion of gypsum has been introduced,) that have been allowed to stand exposed to the air for several days.

When the spirit of inquiry and trust that animates your correspondent, pervades the whole mass of the agricultural community, dissipating prejudice and willing ignorance, then it may be expected that science "will do her perfect work;" and what perfection may we not anticipate from enlightened practice under her auspices?

In conclusion, I would recommend for the study of every farmer, some elementary work on chemistry, of a good character, as Dr. Draper's—price 75 cts; or B. Silliman's jr.,—price \$1.00. S. W. JOHNSON. *Deer River, N. Y., May 9, 1847.*

OSAGE ORANGE.—Under this head, in the May number of the Cultivator, you say—"How it may stand the winters of this latitude we are unable to say, but deem it well worth a trial, being confident that it will answer admirably if it should prove sufficiently

hardy." About ten years since I planted some seeds of the Osage Orange in rather an unfavorable situation. A few plants came up; for two or three years their growth was very little. They were afterwards removed to a more favorable location, when they improved rapidly, throwing out lateral shoots in great abundance. Some winters the trees were affected by frost; others they were not; whether owing to the climate, or the luxuriant growth of the tree, I am unable to determine; but enough survived every winter to answer the purposes of hedging. A shoot of the last year's growth measures more than eleven feet in length. G. S. Erie, Pa., May 21, 1847.

OSAGE ORANGE FOR HEDGES.—I see by the May number of the Cultivator, that some of your citizens have got on seed of the Osage Orange, for experiment. Three years ago I procured some of the seed, and planted it without any preparation other than preparing the ground, (a sandy loam,) and putting it in, in good condition to produce any vegetable production. That season, (three years ago,) was very dry here. The seed did not germinate, but lay in the ground until the following year; and then I believe almost every seed came up, and grew vigorously. The plants stood the following winter well. None of them were injured by the following winter, (which was a very severe one,) except a few inches of a second growth, which started late in the fall. For hedges, this would rather be an advantage than otherwise; as it would tend to make the hedge more compact, without the trouble of pruning. This last winter, none of the young trees suffered more by our climate than an apple tree; and the growth being quite equal to that of a young apple tree, both in the nursery and the few I set out. I therefore conclude, as far as I have had experience with the Osage Orange, that it will bear the climate of the north as well as the apple. Whether it will bear fruit is yet to be known. To form a hedge, I judge it would be as well, if not better, to plant the seeds, keeping them clean, where they are wanted for the hedge, as I find them a very troublesome article to transplant. The thorns on them are very numerous and very sharp. D. MINIS. *Beaver, Pa., 1847.*

SHEEP HUSBANDRY IN VIRGINIA.—I see a communication in the June number of the Cultivator, in relation to the agricultural advantages of Nelson Co., Va., signed "Nelson." Among other things mentioned, he speaks of the adaptation of that section of country to the growing of fine wool, upon the authority of Samuel Patterson, Esq., of Washington Co., Pa. If "Nelson" will cross the mountain into the adjoining county of Augusta, he will there find a flock of pure Merinos, brought from Vermont, which have been living and thriving for the last two years as well, probably, as they ever did at the North. No disease has ever been seen among them. This season, the whole flock, (94,) a large proportion lambs, averaged within a fraction of 5 lbs. clean wool per head. One two year old ram sheared 9 lbs. 4 oz. This flock have had no extra keep, yet they have been fat the year round. This is proof by experience, that this part of Virginia is well adapted to the growing of fine wool. I have paid some attention to the subject during the last four years, having travelled considerably in the southern and southwestern states, (not by steamboat or steam-car,) but on horseback, and never have, in my opinion seen a country better fitted by nature for sheep husbandry than this section of Virginia. The greatest drawback here, is the destruction of sheep by the numberless hordes of worthless cur dogs, (kept generally by worthless men,) which go prowling about the country seeking what they may devour. I hope that means

will be used, when the next census is being taken, to ascertain the number of sheep annually lost in this state by dogs, and their value. It will, I have no doubt, astonish the natives. AUGUSTA.

PROPER CONSTRUCTION OF LIGHTNING RODS. —

As the season is fast approaching in which large quantities of hay and grain are to be stored, I wish to call the attention of your numerous readers to the importance of protecting their barns by lightning rods.

It is well known that the warm vapor arising from newly filled barns, has a strong affinity for electricity, and on the near approach of a thunder cloud, places such buildings in imminent danger; but a prejudice has arisen against the use of conductors, from the improper manner in which they have generally been constructed. When not rightly made and put up, they are of no value. In many cases they may be even worse than useless. For instance, if the points at the upper extremity are covered with rust, they will not answer the purpose intended, because a metallic oxide *repels* instead of attracting electricity. If the lower end terminates before reaching the ground, or penetrates it but a short distance, the fluid is liable to escape from the rod into the side of the building, which being close at hand, offers a better conductor, than the air, or the dry surface of the ground.

For the information of such as may not have given attention to this matter, I will give the method of making and attaching conductors, which has been tested by experiments, and approved by men of science.

They should be made of horse shoe rods, five-eighths inch square, which are sufficiently large, and being slit cold, have a rough jagged surface, affording numerous radiating points. The several pieces of which the rod is composed, may be welded smoothly together, so as not to increase the size, or joined by a hook and eye. In the last method, the hook should have a point left on the end, and be driven into the eye after being bent at little more than a right angle.

In applying the conductor to barns, begin at the northwest corner, by inserting the rod far enough into the ground to always insure its contact with moist earth; carry it along the gable end to one end of the ridge pole, thence along the ridge pole to the other end of it, thence along the other gable end, and down the southeast corner, continuing it *into* the ground, as in the beginning, far enough to reach the *moist* earth. There should be a point at the eaves on each corner, and one on each end of the ridge pole, which should be covered with a coating of silver to prevent them from rusting. The rod should be secured in its place by wooden fastenings. If these directions are carefully observed, there can be but little doubt that buildings thus provided would be effectually secured against destruction by lightning, with little trouble and at a small expense. W. Meriden, N. H., June, 1847.

CANADA THISTLES.—Some persons suppose that this plant is only propagated by root, not from seed. The idea is unquestionably erroneous, and leads to a carelessness which permits the increase of the pest. It is true that it spreads rapidly by roots; but where it is seen to spring up, as it frequently does, at a considerable distance from where it had previously grown, it may be known to have sprung from seed. It should therefore be made a rule to prevent its seeding in all cases. We believe a law requiring the periodical cutting of Canada thistles on the public highways in this state, has for some time existed, and during the last session of the Legislature, an act was passed to "provide for the destruction of Canada thistles, and other noxious weeds on the banks of the canals, railroads, and turnpike roads." This act makes it the duty of the superintendents of canals, and the several railroad and

turnpike corporations, to cause all the thistles and noxious plants growing on the sides of the canals, to the width owned by the state, and all those growing on lands belonging to the corporations, to be cut twice in each year—once between the fifteenth day of June and the first day of July, and once between the fifteenth day of August, and the first day of September. In case of the neglect of the officers to have this work performed as specified, it is provided that any person may cut the thistles, &c., within the time mentioned, and they shall be entitled to receive for the labor so performed, at the rate of one dollar per day, of the superintendents of the canals, or the several railroad companies.

In pastures and all grass grounds, thistles should be *mowed close to the ground* twice a year, just as they are in blossom, before any of them have seeded. The labor of cutting will in many cases be repaid by the extra quantity of feed which may be thus obtained. Thistles frequently occupy the best ground, and where they stand thickly, they prevent animals from eating the grass, which grows among them. By cutting them closely, the grass springs fresh and sweet, and the patches are grazed so much that the growth of the thistles is often much checked. On moist land, which is inclined to make a thick sward, thistles may be effectually smothered down and killed by following up the practice of cutting for a few years. We have formerly proved this in our own experience in repeated instances.

In cultivated land, the Canada thistle may be destroyed by frequent plowing. Four thorough plowings, with an interval of three weeks, between each plowing, will destroy the principal portion of them. In a late excursion to the westerly part of the state, we were informed by several farmers that they had pursued this course with advantage. Among others we may name DAVID THOMAS, Aurora, G. V. SACKETT, Seneca Falls, JOHN JOHNSTON, near Geneva, and D. M. ELLIS, Onondaga Hill. Mr. ELLIS showed us a field which a few years ago was completely overrun with Canada thistles. He plowed it in June, after the thistles had got considerably started, and as soon as the sod was pretty well rotted and the thistles had shot through the furrows for a second growth, he plowed it a second time, and so a third time, frequently harrowing in the interim between the plowings. This field was sowed to wheat, and scarcely a thistle appeared in the crop. It is now in pasture, and but very few thistles have yet shown themselves.

MEASURING HAY.—On page 214 of the Cultivator for July, I find a communication signed H. A. P., giving a rule for measuring hay in the mow or stack, and stating that the writer had verified its general accuracy, and had both bought and sold by it. He says—"if the hay be somewhat settled, ten solid yards will make a ton. Clover will take from eleven to twelve yards for a ton." I think there must be a mistake somewhere. The box of an ordinary wagon contains one solid yard, and ten of such boxes piled one on the other, would be more than ten solid yards, but would make but a small quantity of hay for a ton. It was this view of the subject which first struck me on reading the article, and if I be correct, your correspondent H. A. P. must be wrong, and as this is one of those rules that do not work both ways, being a very good one for the seller, but bad for the buyer of hay, it will be well if there be a mistake, to correct it. A SUBSCRIBER.

[Perhaps we should have added a brief note to H. A. P.'s article in the July number. His rule for measuring hay is one which we have never tried, and cannot say whether it is correct or not. The rule which we have formerly followed, in some instances, was 400

solid or cubic feet to the ton of hay in the mow. This would give nearly fifteen square yards, (instead of ten,) to the ton. But it is obvious that no *invariable* rule can be adopted in such a case, so much depending on the amount of pressure which the hay may have received, or its susceptibility of being reduced to a small compass.—Eds.]

.....
HYDRAULIC RAM.—I notice in the June Cultivator, a partial description of Messrs. Farnham, Brown & Co.'s Hydraulic Ram. I wish to make some inquiries of you in regard to the machine. In the first place, I live about 75 feet above, and about as many rods from the pond of water that I wish to use. I can have from five to twelve feet fall, and I should like your opinion about the machine affording me a stream of water, and whether it would be liable to freeze up in winter, here amongst the Green Mountains; and whether I can carry the water in pine logs, and how long the machine will be warranted to operate. E. H. WEEKS.

[We publish the above in the hope that Messrs. F. & B., or some one else, will furnish the information called for.—Eds.]

.....
HORSE RAKE.—It is well, Messrs. Editors, to preserve the memento of implements useful to the farmer, and as the farmers of America have profited largely by the advantages derived from the horse rake, I deem it but justice to the inventor, a poor son of Africa, to treasure up its history.

A *black man*, who lived in Hempstead Plains, Long Island, says the Farmer's Cabinet, invented the horse rake. He died in 1821. It was first introduced into Pennsylvania in 1812. The first one was *destroyed* by a malicious person, who feared its innovating effects on the price of labor. It is now becoming universal, and many a patent instrument is to be found, while the inventor is forgotten. It saves at least one half of the expense in gathering the hay. Let Africa's son have the credit. Surely the farmers of America will not be unwilling to award credit where it belongs. H.

.....
THE INFLUENCE OF THE BARBERRY, AND THE DOCTRINE OF TRANSMUTATION.—We trust our friend the writer, will pardon us for giving publicity to the following extract from a private letter:

"The barberry was out of flower a fortnight to three weeks before our wheat came into bloom. I have never yet seen the man or writer, who could give any satisfactory reason why the barberry should blast wheat; yet Sir John Sinclair believed in the notion, being misled, if I remember right, by one of his scientific friends; and it is sad to think that science should be perverted to such purposes. In the June number of the Genesee Farmer, however, at page 137, we have two extracts from a very learned work, and no less a name than that of Dr. Lindley, of London, is given as authority for the transmutation of *oats into rye*! Dr. Lindley ought to be high authority, but great men are not always wise. Even Linnæus himself believed in the annual submersion of swallows! and many celebrated men have been equally credulous.

"People generally believe too much; and I shall not be misunderstood when I comprise all superstitious folks in this class. I have thought that farmers occupied a conspicuous place in this legion; but it is so much easier to believe—to take a thing for certain—than to observe and to reason; that thousands, like a flock of sheep following a bell-wether, wander in the devious wilds of error. And when once fairly within the enclosure, how unwilling they are to have old prejudices disturbed, and how eagerly they catch at every straw that promises the least support!

E. S. Johnson, of Penfield, is the champion on this occasion, who comes forward in the garb of philoso-

phy, to prove the doctrine of transmutation. A little more discernment, however, might have saved him from this trouble. The *second* extract, in my judgment, disproves the *first*. After telling us with great gravity, that if the stems of oats are cut down, "*invariably* rye is the crop reaped,"—he tells us with equal gravity, that Lord Hervey only got a very slender *barley*, *resembling rye*, a little *wheat*, and some *oats*! Not a word is said of the cleanness of the ground—of the impossibility that rye, wheat, or barley, could be accidentally dropped there—or that any care was taken to prevent it. The mind that can be satisfied with experiments of this kind, must be in a deplorable condition; but yet not very dissimilar to what we have generally seen amongst the advocates of transmutation.

"When oats are thus turned into rye, a *thin crop only is produced*. What becomes of the rest of the oats? and by what magic process is some turned into barley and some into wheat? As Gideon B. Smith once remarked, 'Verily, we are making rapid advances *back* again to the darker ages.'

"During the long controversy on wheat turning into chess, several instances were stated by gentlemen of unimpeachable veracity, of farms and districts, where not a single stalk of chess was discovered among the wheat in many years—say 20, 30—and even longer periods. Now, one well established fact of this kind, is sufficient to outweigh the testimony of a thousand Dr. Lindleys, where the more careless the experimenter in favor of transmutation, the more likely he is to succeed."

.....
AROMA OF PLANTS—INQUIRY.—Allow me to inquire whether the culture of aromatic plants in proximity, would have any effect on the innumerable insects that infest and often destroy our vegetation? The aroma of certain plants is obnoxious to most insects, evinced by their absence if not virtual destruction. Aside from this influence, may not the effete matter of the *protecting*, furnish direct support to the *protected* plant. An established principle in the "animal economy"—"the bane of one is food for another," would seem applicable to the vegetable. The fertilizing properties of certain plants for the growth of others in alternation, furnishes an apposite illustration.

Those broad-leaved and vigorous plants that live in quite different latitudes, may they not be properly juxtaposed in our orchards, vineyards, and nurseries? I am almost ready to ask, may not the "creeping ivy,"—the multiform parasitic vines that climb and even rise with the "proudest oak," be a source of sustenance and consequently a support, instead of an absolute dependant on their trellised upholders. D. T. BROWN.

[It may be possible, that in some cases, noxious insects may be effectually repelled by the odors of plants—of which actual experiment would be only conclusive—but in most cases the remedy would be worse than the disease, as the amount of such plants required, would entrench largely on the space and soil needed for other purposes. It is very much to be questioned if any useful end would be thus attained, except in very extreme cases.

With regard to the aroma from plants affording nourishment to other plants, there is nothing in the known experience of horticulturists and of vegetable physiologists, nor in any theory based on fact, which strengthens such a supposition. The matter constituting aroma, is exceedingly small, and can contain but little of a fertilizing nature.]

.....
LABORER'S COTTAGE—SHEEP RACK.—The correspondent of the Cultivator over the letter "T.," will confer a favor by informing us, (through the same

medium,) by what means the joists which support the chamber floor and partitions above are sustained, in the "laborer's cottage," figured and described in the January number? And also, in what part of the frame "braces" are employed, as it is observed that they are in the bill of timber. And also, will he give the distance or space between the slats of the "sheep rack," also figured and described in the March number, and by what means the hay is kept against the slats, and within reach of the sheep? W. R.

[The joists referred to were supported by thick strips of plank, spiked on the inside of the upright siding. We do not at this moment recollect any braces used in the building, except in connecting the rafters, to lath upon overhead.

The space between the slats of the sheep rack, is about six inches—or just wide enough for each sheep to thrust its head freely between, and thus enabled to reach the hay without difficulty, and by which means less is wasted than if drawn from the rack at each mouthful. Any carpenter may easily measure the thickness of a sheep's head, and act accordingly.]

.....

"THE WEST."—The *Prairie Farmer*, commenting on a communication in the *Maine Farmer*, giving prices of lands and products "at the west," very properly asks, "Where is that?" The west is a pretty extensive term. It may include about 14 states, stretching from the northern extremity of Wisconsin, to the southern line of Texas, if anybody knows where that is, and it may include any extent of territory west of Mississippi to the Rocky Mountains; or, it may mean some little corner in one of the states, where the writer has a friend or correspondent.

.....

HOW MUCH PORK WILL A BUSHEL OF CORN MAKE? This is, no doubt, a hard question to answer, as so much depends on certain contingencies—such as the natural tendency of the hog to fatten, the manner in which the food is prepared, and the situation in which the animal is placed in regard to all the circumstances which promote the secretion of fat. An amount of food which would fatten an animal when placed in a dry and comfortable pen and fed from a clean trough, might be no more than adequate to the supply of the waste of the body, under an exposure to cold and wet, where quietude and comfort could not be enjoyed. Still an approximation may be made towards the settlement of this question. If a series of experiments could be made with hogs of the best breeds, placed in all respects in similar circumstances, both in regard to quantity and quality of food, shelter, and mode of feeding, a succession of results of similar character would no doubt in time be obtained, and they might be fairly taken as establishing for all practical purposes, the point involved in the question.

The committee to adjudge premiums on swine for the Essex County (Mass.) Agricultural Society, at the exhibition in 1846, in concluding their report, make some observations on the cost of making pork. They say—

"It is believed by your committee that pork can be raised for six cents a pound, when corn is sixty cents per bushel, at seven cents a pound when it is seventy cents per bushel, and so on, either way, one cent a pound on the pork, and ten cents a bushel on the corn. And this conclusion is drawn from the fact that a good thrifty hog, that will eat four quarts of corn a day, will gain a pound and a-half of pork a day."

According to the above rule, a quart of corn is equivalent to six ounces of pork, and a bushel is equivalent to twelve pounds. The committee do not state, (what is certainly very important,) whether the corn should be ground, and the meal given either raw or cooked,

or whether the corn is to be fed whole in its raw state.

The committee, however, speak in regard to the utility of cooked food, especially apples for swine, as follows:

"Our own testimony would go strongly in favor of cooked food, and some of us are of opinion that if it be fermented it is all the better. Indeed, apples, sour or sweet, if boiled and mixed with meal are not only eagerly eaten by swine, but are nearly as promotive of their growth as potatoes managed in the same way. We have no question that this is the best use to which cider apples can be appropriated."

.....

"BIG HEAD" IN HORSES.—The disease in horses called "big head," is sometimes very troublesome, both on account of the pain and injury it inflicts on the horse, and the difficulty of curing it. J. J. ROUSSEAU, in the *Prairie Farmer*, gives an article descriptive of the disease and mode of cure. He says—"The first appearance of the big head, when it attacks the upper jaw, is more like that produced by the halter in breaking young horses than anything I can compare it to. Indeed so similar are the two that jockeys frequently trade off horses having incipient big head, stating that the appearances have been produced by a halter. The horse first loses that delicacy of proportion about the head which is one of his greatest ornaments, looking clumsy and awkward on account of the swelling which takes place first at or near the place where the nose-band of the halter passes round the nose. The tumors are at first small and circumscribed, and may not be noticed by a careless observer. Their situation is on each side of the face at the place above indicated, and when they acquire their greatest size, they extend to the eyes, or thereabout, and their elevation will be one or two inches, and in bad cases more. The head now presents a peculiarly clumsy appearance. Frequently before the upper part of the head advances so far as just described, the affection seizes the lower jaw bone, which becomes much larger than natural."

The shoulder, also, he says, is liable to be attacked. It begins to swell at the points, from which it extends and embraces the whole scapula. But the disorder observes no regularity in its attack and progress. "Sometimes the face alone is affected; sometimes the lower jaw, and sometimes the head is last affected; the complaint beginning in the shoulder, and extending to the limbs, and finally to the head." In some cases it is said, the disorder does not extend to the head, and in such cases it is called the "stiff disorder," though the complaint is said to be the same, as is proved by its being cured with the same treatment. It appears to be known by the various names of "big-head," "big-jaw," "big-shoulder," and "stiff disorder," but the same treatment is recommended for all. The disease is divided into three stages. The first stage is known by stiffness in the limbs, lameness, &c. The second stage is shown by the enlargement of the head, jaw or shoulder. The third and last stage is shown by the protuberances on the head, having gained a considerable size and bony consistence. The treatment for the first and second stages is given as follows:

"1st. Apply a cord around the upper lip, put in a stitch and twist it so as to hold the horse still. This is a common operation and familiar to every farmer. Then cut through the skin on the middle of the nose, vertically, and immediately on the rounding part between the nostrils. Let the incision be no deeper than to expose the tendon which passes down in this place. Lay hold of the tendon and cut it in two; then cut it off again at the distance of about one inch, taking the piece entirely out. (The piece must be taken out, or the cut extremities would soon reunite.) Next, double

one ear and excise about an inch from each cord—so with the other ear.”

After the operations have been performed, it is recommended to turn the horse to grass, to give him no grain, and neither ride or drive him until he is well, which it is said will require several weeks, and it is recommended to give him on alternate days, a teaspoonful of salt-petre, and a tablespoonful of sulphur, for 9 or 10 days; bleeding him every two or three days in the course of that time.

In case the disease has reached the third stage before treatment is commenced, it is directed to “bore a gimblet-hole in each protuberant bone of the face, (one on each side,) and introduce into them a piece of arsenic the size of a pea, wrapped in tissue paper.”

.....

ROAD MAKING.—I was gratified by your introducing the subject of roads to the notice of the readers of the Cultivator, and I like much the suggestions of Mr. Gillespie, in your quotations from his work on road making. We, at this place, need only to travel a few miles south, to the bounds of Pennsylvania, to see proofs of the advantages of the money tax system for road making and repairing, over the operations of our plan. Although the soil there is inferior to ours for roads, and the settlements newer and more scanty, there is a strikingly marked difference in the quality and condition of the roads in their favor.

I have long thought that a mode of taxation entirely different from any that I have known adopted, might be devised, which would secure the object more certainly and cheaply, and be less burdensome to the people. It should embrace the principle, as a main feature, that every parcel of real estate should support that portion of road which passes through and by it, and be, with suitable exceptions and qualifications, exempted from further taxation for such purposes. I think a system based on this principle might be perfected, so as to effect the following advantages: Every person owning real estate, would at once make his portion of the road in the best and most durable manner. They would feel that by this course, they would, as it were, relieve their estate from the payment of annual interest on a mortgage with which it was encumbered. He could perform his work when convenient, instead of doing it at the order of a capitious overseer. He would do it as he does the work on his farm by full days' work, instead of wasting his time, as is commonly done in the present system. Besides, a commendable emulation would be excited among neighborhoods and individuals, which would insure excellence in their work.

I should think that a commissioner of highways (I would by no means have more than one,) should be elected in each town, to perform the ordinary duties of superintendents—seeing that all roads are constructed on one and an improved model, and kept in perfect order. He should also assess an equitable tax on all personal property in the town, a poll tax on all persons not exempt as above, and a tax on such real estate as is located in villages and other situations, in which no specific labor is needed. The money so raised to be applied to the construction and repairs of bridges, and to aid those persons who may be too heavily burdened by their portions of road. If this source of revenue should not prove sufficient for those purposes, he should have power to direct an appropriation by the board of supervisors, chargeable to the general account of the town.

I should think that all the commissioners of towns in a county, would form an appropriate board of appeal, from the decision of any one commissioner, in all cases of grievance, on the part of individuals, or of the town, with, perhaps, ultimate appeal to the board of

supervisors. I do not presume that this sketch of a plan approaches a perfect one—perhaps you may think it chimerical. If so, I hope you or others will contrive a plan which will operate better than the present one, which almost entirely fails with us, though the highway tax bears a proportion to our town and county taxes, as six to fifteen. A. D. Binghamton, July 12, 1847.

.....

SUCCESSFUL STEEP FOR SEEDS.—Much has been said and written on the subject of soaking seeds in different preparations, for the purpose of promoting their rapid vegetation and growth. As far as I have heard or read, these experiments have proved that most of these solutions or preparations are nearly or quite worthless. I will, however, state a few facts in regard to one solution that I have tried for the last three seasons.

In the winter of 1845 I found, in the Philadelphia Saturday Courier I think, the following recipe—“Soak garden seed four hours in a solution of chloride of lime in the proportion of 4oz. chlor. lime, to one gallon of water.” The writer observes that seeds which were soaked thus, came up some days sooner than those which were not soaked, and that the plants kept the lead through the season.

The experiment being easily tried, I made up my mind to give it a fair trial, and see what the result would be. On the 10th of May, 1845, having my ground ready, beds made, hills all prepared, so that as little time as possible should be consumed in planting, I put cucumber, muskmelon, beet, summer savory and radish seeds, and corn, beans and peas into the solution, let them soak four hours, and planted immediately.—Twenty-four hours after planting, I dug up some of the corn and peas, and found that their roots were from one to one and a-half inches in length. In forty-eight hours the roots were three to four inches, and the spire one to one and a-half inches in length. The precise day that they broke ground I now forget.

My cucumbers and melons came up quick and well, and for the first time in my life, my beets were up before any weeds were started. In a garden adjoining mine, planted nine or ten days previous to mine, beans were just breaking the ground when mine were planted, yet mine passed them in a week my corn came up about the same time, and my peas came up first. Now as to the *moisture* merely, seeds lying in the ground eight or ten days would imbibe as much as they would by being soaked four hours. I have not marked the exact time of my seeds vegetating, since 1845. I know, however, that my seeds do not fail me as they used to do, and as my neighbor's very frequently do.

This year I did not plant my garden till the 17th of May. Everything that I soaked came up quick, so that my plants were altogether ahead of the weeds, and my cucumbers and melons have kept out of the reach of the bugs, while my neighbors have planted two, three, and four times. I have never seen any notice of this solution, except as above mentioned. Two or three of my neighbors have tried the experiment this year with the like good results. BAILEY. Binghamton, 1847.

.....

GLUTEN IN WHEAT.—This valuable constituent in wheat, varies much in quantity with climate, and with the kind of manure. Wheat in warm climates has most gluten, often nearly one-half more. Equal portions of Cincinnati and of the best Alabama flour were made into bread, with the addition of equal portions of yeast. On baking, the bread from Cincinnati flour was found to be 33 per cent. heavier than the flour and yeast together; the Alabama flour had gained 55 per cent., in consequence of the larger quantity of gluten in the latter. Wheat manured with ox-blood and some other of the most powerful manures, was found to contain about three times as much gluten as with cow manure

AGRICULTURAL SOCIETIES.

NEW-YORK STATE AGRICULTURAL SOCIETY.

We publish below, a list of the Judges appointed by this Society, to award its prizes at its next Fair, at Saratoga Springs, on the 14th, 15th, and 16th days of next month.

Those who intend to compete for premiums should remember that all animals and articles must be ready for examination on the first day of the exhibition—that is, on the FOURTEENTH OF SEPTEMBER. The first day will be devoted exclusively to the examination by the judges, of the animals and articles exhibited, and no persons will be admitted within the enclosure on this day, but the officers of the Society, judges, and exhibitors.

At the last meeting of the Executive Committee, the PRESIDENT reported that he had, with the Secretary, visited Saratoga Springs during the past week, and was happy to inform the Committee that the citizens of Saratoga have organized their committees as requested by the Executive Committee at their last meeting; and that they are making arrangements for the erection of buildings and enclosing the grounds. Assurances were given that everything required would be in readiness for the approaching Fair of the Society.

The SECRETARY reported that he had, in pursuance of the directions of the Executive Committee, corresponded with the officers of the railroad companies, and that the usual facilities would be furnished to the Society at the Fair. Articles and stock for exhibition to be transported free. Visitors in special trains, at half the usual fare. Officers of the Society to be carried to and from the Fair in any of the trains at the same rates.

AWARDING COMMITTEES.

On Durham Cattle.—Effingham Lawrence, Flushing, Long Island; Henry Holmes, Washington; Thomas Hollis, Otsego.

On Herefords, Devons, and Ayrshires.—Lemuel Hurlbut, Winchester, Ct.; Frederick Ingersoll, Oneida; Thomas Bell, Westchester.

Cross-Improved and Native.—Richard Griswold, Lyme, Conn.; Wm. Fuller, Skaneateles; John Budd, Greene Co.

Working Oxen.—Sanford Howard, Albany; Joseph Bennett, Otsego; Hiram Clift, Onondaga.

Steers.—John Boies, Homer; J. B. Dill, Auburn; Julius Curtis, Oneida.

Fat Cattle.—Hiram Slocum, Troy; Thomas Devoe, New-York; Lester Barker, Oneida.

Milch Cows.—Newbury Bronson, Wyoming; John Bathgate, Morrisania; Elias Cost, Ontario.

Horses, Class 1 and 2.—Hon. Adam Ferguson, Canada West; Theodore S. Faxton, Oneida; A. W. Clark, Jefferson.

Blood Horses.—Charles Henry Hall, Harlem; John T. Cooper, Albany; Alexander O. Spencer, Wayne.

Matched Horses and Geldings.—Silas K. Stow, Troy; W. S. Stoutenburgh, Coxsackie; Barent P. Staats, Albany.

Long Woold Sheep.—Edward Hallock, Ulster; L. D. Clift, Putnam; Thomas Dunn, Albany.

Middle Woold Sheep.—Francis M. Rotch, Otsego county; S. Wait, Jr., Orange; Henry Mesier, Dutchess.

Merinos.—Henry G. Taintor, Hampton, Conn.; Robert L. Rose, Ontario; J. L. Randall, Onondaga.

Saxons.—James M. Ellis, Onondaga; S. C. Scoville, Salisbury, Conn.; M. Y. Tilden, Columbia.

Swine.—Henry Rhodes, Oneida county; Martin Springer, Rensselaer; Wm. Howard, Cayuga.

Poultry.—H. A. Field, New-York; F. C. Moses, Onondaga; Mr. Potter, New-York.

Plovers.—John S. Gould, Columbia county; Edwin N. Hubbell, Greene; Morgan L. Brainerd, Oneida.

Wagons, Harrows, &c.—W. H. McCulloch, Greenbush; Matthias P. Coons, Rensselaer; Richard Van Dyke, jr., Greene.

Farm Implements, &c.—T. A. Barrall, Ontario county; Benj. N. Huntington, Oneida; Hart Massey, Jefferson.

Plowing Match.—John McDonald, Washington county; Isaac Tallmadge, Rensselaer; Joseph Ball, Otsego; Leonard Bronk, Greene; Hiram Mills, Lewis.

Butter.—Israel Denio, Oneida county; Washington Putnam, Saratoga; John Bloom, Albany.

Cheese.—Joseph Carey, Albany; Joel Woodworth, Jefferson; Joel Root, Saratoga.

Sugar.—Robert McDonnell, Saratoga; George Tuckerman, Otsego; James M. Cook, Ballston Spa.

Silk.—Ebenezer Proudfit, Rensselaer; James Clark, Hudson; Henry Carpenter, Albany.

Domestic Manufactures.—Orville Hungerford, Jefferson; Le Grand B. Cannon, Rensselaer; W. J. Gilchrist, Saratoga; Edward Wells, Montgomery; John Van Duzen, jr., Columbia.

Needle Work, &c.—Mrs. Lebbeus Booth, Ballston; Mrs. Miles Beach, Saratoga Springs; Mrs. M. Harvey, Salem; Mrs. Henry Holmes, Union Village; Mrs. Wm. A. Beach, Saratoga Springs; Mrs. Samuel Young, Ballston; John J. Viele, Esq., Troy, Secretary to committee.

Flowers.—Dr. Herman Wendell, Albany; W. R. Randall, Cortland; J. W. Bissell, Monroe; James R. Westcott, Saratoga; Ladies.—Mrs. E. C. Delavan, Ballston; Mrs. E. Huntington, Rome; Mrs. Huntsman, Flushing; Mrs. Dr. O'Toole, Washington, D. C.;

Mrs. L. Tucker, Albany; Mrs. Margaret Conkling, Melrose, near Auburn.

Vegetables.—Thomas Bridgeman, New-York; R. Harper, Albany; David Gray, Utica.

Miscellaneous Articles.—E. P. Prentice, Albany; Joshua Atwater, Greene; Ransom Cook, Saratoga.

Fruits.—Lewis F. Allen, Erie; Samuel Young, Saratoga; Roswell Reed, Greene.

Paintings and Drawings.—J. J. Thomas, Wayne; W. W. Forsyth, Albany; O. D. Grosvenor, Oneida.

Stoves, &c.—Pomeroy Jones, Oneida; Edward Fitch, Saratoga; Asa Fitch, M. D. Washington.

Discretionary.—Orville Clarke, Washington; Joel Rathbone, Albany; W. L. F. Warren, Saratoga; A. L. Linn, Schenectady; George Griffing, Greene.

Foreign Stock—Horses.—James D. Wasson, Albany; Ela Merriam, Lewis; Dr. Carrington, Farmington, Ct.

Cattle.—Horatio Sargeant, Springfield, Mass.; Ira S. Hitchcock, Oneida; E. P. Beck, Wyoming.

Sheep.—Stephen Batty, Washington county; John Murdock, Monroe; Samuel H. Church, Oneida.

COMMITTEE OF ARRANGEMENTS.—Geo. Vail, Troy; B. P. Johnson, Albany; T. J. Marvin, W. A. Beach, J. T. Blanchard, J. A. Corey, Saratoga Springs; Samuel Cheever, Bemis Heights.

COMMITTEE OF RECEPTION.—Hon. R. H. Walworth, Saratoga; Samuel Young, Ballston; John A. King, Jamaica; E. C. Delavan, Ballston; T. J. Marvin, G. M. Davison, J. H. Corey, Saratoga Sp's.

The NEW HAVEN COUNTY (CT.) Society is to hold its next exhibition at Waterbury, on the 6th of October. Efforts for a large display are being made.

JEFFERSON COUNTY, N. Y. The annual Fair is to be at Watertown on the 9th and 10th of September. The address is to be delivered by Dr. LEE, editor of the *Genesee Farmer*.

CULTIVATION OF CEREAL GRAINS IN COLD CLIMATES.—In *Silliman's Journal*, there is a notice of a paper recently published in St. Petersburg, on the culture of grain in high latitudes, by M. KUPFFER. It is stated that in the north of Russia, near Nertchinsk, where the mean temperature is about 26 degrees F., all the cereal grains are cultivated with success, especially summer rye and barley, although there are only two months and a half, or at most three months, between plowing and harvest. In the same fields, he found by digging, that the soil was completely frozen at a depth of seven feet, and so hard that a crow-bar was required to turn it up. This was on a hot day near the middle of the month of August. The depth to which the ground is frozen in high latitudes is surprising; thus it is stated that in penetrating the earth near the place above mentioned, to the depth of 175 feet, not a drop of water was found; all was frozen.

PAINTING BRICK BUILDINGS.—A cheap and good way of painting brick buildings is given by T. Hudson, a correspondent of the *Prairie Farmer*. He states that he has seen buildings thus painted 12 or 15 years ago, the color remaining as bright as when first put on. Slack fresh burnt lime, as for whitewash, and add Venetian red to give it the desired color. Apply it with a whitewash brush, in dry, hot weather. Two coats are sufficient. Then with a chalk line lay off the joints in the brick, and pencil those lines with whitewash or white paint, the former proving most durable. Salt, glue, or skim milk are said to improve this paint or wash, but are not essential.

IMPROVEMENT IN CATTLE.—The American Herd Book states on the authority of Youatt, that the average weight of cattle at the Smithfield market, London, in 1710, was only 370 lbs. each. In 1795, the average was 462 lbs. In 1830, the average weight had increased to 656 lbs. each. Formerly, the average age of the fat cattle was five years; now, only four years.

DOMESTIC ECONOMY.

GLASS MILK PANS.—A lady of my acquaintance will insist that more cream will come on milk in a glass than in an earthen basin, before the milk sours; and that milk put in a glass vessel becomes very thin and poor. Every effect must have its cause; but I can account for this, if it is true, in no other way than this. Most bodies have a current of electricity passing through them—that glass is among the few non-conductors of electricity, and therefore, the milk being separated from this general flow, is allowed longer to remain uninfluenced by galvanic action than if it were in a basin of electric conducting material.

It is a well known fact that heavy thunder and lightning tends to curdle milk very soon; wherefore I conclude that this accounts for the lady's wonderful discovery, if it is discovered. T. G. Livingston, La.

[Glass milk pans have been considerably introduced in England, and are well liked. It is often said that they preserve the milk unchanged for a longer time than other pans. We have never used them, and cannot, therefore, say whether this is so. It is generally admitted that milk sours rapidly during thunder showers; but whether this effect is owing to the agitation of the milk, or to electrical currents, we will not attempt to decide.—Eds.]

PREMIUM OFFERED.—Bread has been called the *staff of life*; and upon the quality of it depends the health of a great portion of the people of this country.

The importance of having bread made in the best manner, seems not to be considered sufficiently, either as regards the palate, stomach, or purse. The waste in this country consequent upon improperly made bread, has been estimated by an intelligent, observing foreigner, to equal one-seventh of the whole consumption of wheat flour in it; and however much he may have over-estimated, there has been, and probably is, an abundance of half mixed, clammy, heavy, or sour bread, to be found in travelling through the land.

With all the cleanness that may be used, still the kneading of a batch of bread with the fists is unquestionably hard work; and unhappily for the bread-eater, cleanliness and industry are not always manifested in the persons employed to prepare his principal food.

Why cannot labor-saving machinery be used for bread making as well as for churning, working butter, and washing, and be adapted, also, to the use of ordinary families?

I propose that a premium of \$50 be offered for an effective machine for kneading and mixing dough, that shall be simple in its construction, easily cleaned, to occupy a small space, durable, and not to exceed \$5.00 in cost, for one to work 5 lbs. of flour at a time; and I hand over \$10.00 towards making the above sum, or any other sum that those like minded may see fit to extend it to. To such as take pleasure in lightening the necessary burdens that rest upon females, I would commend a consideration of the above proposition.

The qualities of the machines that may be offered for such a premium I should be willing to have decided by three good housewives, *working women*, to be selected by the editors of the Cultivator. R. W., Jr.

TO PRESERVE TOMATOES FOR WINTER USE.—In your Feb. number, page 59, is an article in which the recommendation to stew tomatoes for use in the winter, by some unknown person, is called an "untried

experiment," and pronounced a humbug; the evidence furnished, being the want of success on the part of some careful housewife, who followed the directions in the recipe. Allow me to say, that on the 22d day of January, 1847, I had the satisfaction of partaking, at the table of a friend, of a dish of tomatoes, stewed plain, put up by the lady of the house as an experiment, to test the practicability of thus preserving them, which were as fresh in flavor and appearance as on the day they were taken from the vines. They were put up late in the season, after the hottest weather was past,—thoroughly stewed, put into large mouthed glass bottles, such as are used for pickles, sealed tight when cold, and kept in a basement room. I suppose the success was the result of the thorough cooking. They should be stewed until the watery parts are evaporated, and the pulp changed to a crimson color. Great care is necessary to prevent its burning. L. Milton, Middlesex Co., N. J.

COFFEE.—Nothing could be more appropriate than your description of the mode of preparing coffee in the June number of the Cultivator. From much experience in drinking, if not preparing coffee, over a large proportion of our country, I feel safe in saying that in nine cases out of ten, it is really unfit to drink, and possesses little or none of the qualities of good coffee. The truth is, the *burning* is taken in its literal sense, and the coffee is *literally* burned, not *browned*, as it should be. Prepared in the proper way, and used with a sufficiency of milk and sugar, it is both a delicious and nutritious beverage. Many of the evil effects of coffee arise from the over browning or burning, giving the decoction that harsh bitter taste, which, although almost universal, is not its proper taste.

Another evil attending coffee making, is, that it is not kept perfectly hot till the time of drinking, and *cold coffee*, whatever be its origin, is a most expressive phrase. For a family, nothing equals the neatness and perfection of a small heater, with a spirit lamp. This may appear to farmers and mechanics an extravagance, as it did to myself, till tried. But after teaching your family how to make good coffee, provide a spirit lamp and screen of the dimensions of your coffee pot. As soon as this is extinguished, cover the wick with a tin tube, and the cost of alcohol need not exceed *three cents per week*, and this is *not* paying too dear for a good cup of coffee.

In a country like our own, where all the substantial of eating and drinking are produced in greater abundance and perfection than in any other country in the world, we do not find, except as rare instances, in private families, hotels, or eating houses, the simple yet delicious beverage, good coffee. I have often thought that a cup of good coffee would beguile many a hungry and fatigued artisan and farmer, as well as other men, from the whiskey punch and brandy sling, were it as prominently put before them as the decanters in the bar room. H.

PRESERVING CABBAGES.—There are several good ways of keeping cabbages during winter by burying them out of doors. The difficulty is, it is hard to get at them during winter, without damage to those left. The following plan appears to avoid this difficulty:—Cut the head from the stump, and pack closely in a cask, taking care to fill up all the vacancies with chaff or bran, and keep in a dry cellar.

GERMAN EBENEZER SOCIETY.

A community of Germans, about six miles east of Buffalo, incorporated by the Legislature under the above name, having about four years since, purchased 8,000 acres of wild land in one body, embracing a number of water privileges, have made such improvements in agriculture and other matters, that I have thought a short sketch of them might not be uninteresting to the readers of the Cultivator. They have been known in Germany for one hundred and fifty years by the name of Separatists; and having sold out their interest and dissolved their community there, they have removed here to the number of 800 souls, and are expecting large additions from Germany during the present season. They have already built up three compact villages a mile or two apart, numbering about 100 large and commodious dwelling houses, some 30 or 40 barns, from 80 to 200 feet long, 4 saw mills, 1 flouring mill, 1 oil mill, 1 large woolen factory, a calico-printing establishment, a tannery, a large variety of mechanics' shops, school houses, &c., &c.; and have large herds of horses, cattle and swine, and over 2,000 sheep. Their property is all held in common, somewhat like that of the Fourierites, or Shakers at New-Lebanon, but in many respects radically different from those communities. They have invested money in various ways on their lands, and in this vicinity, to the amount of more than \$1,000,000. Many individuals put into the common stock from \$3,000, to \$15,000 each; one put in \$60,000, and one \$100,000. If they ever leave the community, which they are permitted to do at any time if they choose, they can draw back the sum they put in, without interest. No one has yet left them from dissatisfaction with their system. By mutual agreement, they can dissolve at any future time and divide the profits. They marry and are given in marriage, and each family lives separate, except that they, in most cases, eat some six or ten families together at a common table. The whole community is under the direction and superintendence of a set of trustees or elders, chosen annually by themselves, who buy and sell and manage every thing as they think will be best for the whole; and as they have all kinds of mechanics among themselves, they have little occasion to go abroad for help. All the children are kept at school under competent teachers, and the older ones are instructed in the higher branches, and also in the English language. Besides being well supplied with books in their families, they all have free access to a large public library.

Religion seems to be the governing and inspiring element in this community; each day's labor is preceded by a season of devotional exercises in their several families, and after the close of labor at night, they assemble by neighborhoods, and spend an hour in prayer and praise. The afternoon of Wednesday and Saturday is devoted to religious improvement. The sabbath is strictly observed by an omission of all secular business, and by various religious exercises, both in their families and public assemblies. Thus far all has been characterized by perfect harmony and peace.

In visiting this community, a stranger will not fail to be struck with the neatness, order, and perfection, with which all their farm operations are carried on; and the astonishing improvements they have made in so short a time,—mostly within three years;—for, besides the buildings they have erected, they have cleared between 3,000 and 4,000 acres of land, from

which nearly every stump is thoroughly eradicated, planted about 25,000 fruit trees, and made many miles of durable fences. Their gardens, yards, and fields, display refined taste and the highest state of cultivation; and from present appearances, they are destined to become immensely rich. In eating, they act on the principle, that to eat little and often, is better than overloading the stomach at long intervals. And they accordingly eat uniformly five times each day: viz, at 5½ A. M.,—9,—11½; 3 P. M., and 7. All of a suitable age, both male and female, are required to labor at such business, as either their taste, genius, or habits may require. And whenever from any cause, such as a change of weather, or the sudden ripening of a crop, an extra number of hands are needed, they can bring 50 or a hundred into a field at once, with any required number of teams, and thus enjoy great advantages in cultivating and securing their crops. By a rather minute division of labor, each man or set of men is required to do one thing, and order and system are every where manifest, and nothing wasted. In a high sense, a place is provided for every thing, and every thing found in its place. In portions of machinery for their factory and mills, and in agricultural implements, they are cautious in adopting our more recent improvements, preferring to use those they brought with them from Germany. Still their cloth and other manufactured articles are made in the best manner, and their farm operations crowned with the highest success.

Separate barns, spacious and well ventilated, are provided for horses, oxen, cows, yearlings, calves, and sheep, so that they are all sheltered in the most comfortable manner through the winter, and the apartments for the sheep are thoroughly whitewashed four or five times a year. Thus they promote health and increase the weight and fineness of the fleece. The sheep are divided into parcels, and each is under the constant attendance of a shepherd and his dog during the day, in summer, and driven up every night and huddled; and the land thus manured by them during the night, is at the proper time sown to turneps. The cattle are also kept in separate classes, and each is under the constant attendance every day of its herdsman, and driven up to their yards at night. And then look at their series of barns, say 150 by 40 feet, standing in a line eight or ten rods apart, and the whole lower part fitted up exclusively, one for horses, another for oxen, another for cows, another for young cattle, another for calves, and another for sheep; another series standing in another line and filled, some with hay, others with wheat, others with oats, corn, barley, &c.; and then other ranges of buildings, enclosing hundreds of swine; and others still, to accommodate all the poultry belonging to the community.

Every stable for horses and cattle, has trenches to carry off all the liquid manure into tanks, to be thence conveyed to the growing crops of the farm; and indeed in all their barns and yards, the utmost attention is paid to making and preserving manure, and their luxuriant crops bear ample testimony to its importance, and the skill with which it is applied. Even the privies at their houses have their vaults extended some three feet back, and covered by a lid hung on hinges; and the night soil removed by long-handled dippers provided for the purpose, is used most plentifully on their gardens. And such splendid heads of brittle lettuce, such cucumbers, cabbages, beans, peas and corn, as

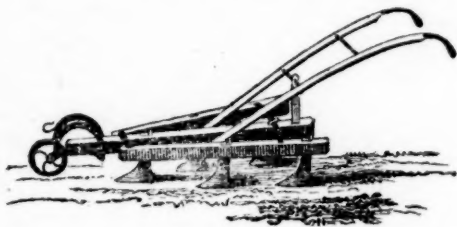
were grown under the stimulating effects of this liquid excrement, it has seldom been my lot to see.

Flora, too, has here her votaries. There are, also, engravers and exquisite painters of plants, fruits, and flowers, for whose works orders are constantly on hand from A. J. Downing, and Wiley & Putnam, and Endicott, of New-York, and Dr. Gray, of Boston, &c.

Altogether, they are a singular and interesting community, and a visit to them being but a pleasant ride from the city, can hardly fail to be attended with both pleasure and profit: Wishing to enlarge their operations, they have recently purchased a large tract of land (1,000 acres,) four miles above Chippewa in Canada, on the Niagara river, and established there a branch of their community. Success to their efforts.

Buffalo, July, 1847.

H. A. P.



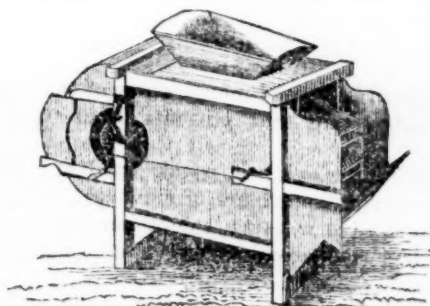
CULTIVATOR.—The above cut represents an implement generally called a Cultivator in this country, or what is called a horse-hoe in England. It is made in various ways, and of different materials. The one above delineated has cast-iron teeth or feet, set in a frame of white-oak. This kind answers a very good purpose in loose soils, but for those of a compact texture, or where strong weeds and grass are to be destroyed, it is better to have steel teeth, which may be brought to a sharp edge, and made to penetrate hard ground, cutting clean as they go. Cultivators of proper construction, are far better than the plow for cultivating crops in general. They leave the ground lighter, less thrown into ridges, and less liable to be dried up.

We have rarely seen an implement of this kind constructed exactly to our liking. Their operation is generally too superficial, except for the lightest soils, and many of them will not even work the surface sufficiently. Soils frequently pack so closely—especially those plowed early in spring or in the previous fall—that some tool is required to penetrate them to a considerable depth in order to induce a proper decomposition of the vegetable matter, and allow the roots of plants to be fully extended. To accomplish this object effectually, the cultivator should be provided with long curved teeth, like the coulter of a plow, which should precede the feet or surface teeth, penetrating the ground, if need be, to the depth of six to eight inches, or as deep as it was at first plowed. This would effectually break the tenacity of the soil, open it to the action of heat and air, and leave it clean and friable.

It is also a great defect with the teeth of cultivators generally, that they are liable to clog. The fibrous matters of the soil, and the soil itself when wet, collect and adhere around the upper part of the tooth, besides adding greatly to the resistance in moving it, prevents its proper action upon the soil. **GEORGE GEDDES, Esq.,** of Fairmount, Onondaga county, lately showed us a tool which had been made by his direction, which appears to us very well shaped, and is in particular calculated to obviate the objection of clogging. It is Mr. G.'s design to have a cultivator made with teeth of this description, and we hope to have an opportunity of seeing it work at the next State Fair.

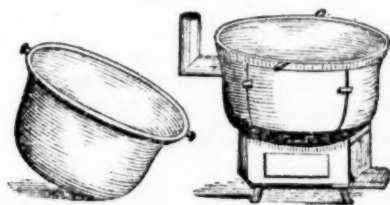
A useful appendage to a cultivator is a wheel, attached as represented in the cut. It gives a steady-

ness to the working of the implement, regulates the depth, and enables the operator to manage it in all respects with more facility and precision.



GRANT'S FANNING MILL.

THIS is considered one of the most perfect machines for cleaning grain and all seeds which has ever been made. It cleans grass and mustard seed, as well as all kinds of grain. It has acquired a very extensive reputation—the manufacturer having sold large numbers of them in many parts of the United States. It has latterly been introduced in the rice districts of the south, where they are highly commended for the purpose of cleaning rice. It has received the highest premiums from various agricultural societies, among which may be named the New-York State, the Pennsylvania and Maryland Agricultural Societies, and the American Institute, and many county agricultural societies. We believe it has succeeded, in all cases, in competition with all other machines. Each mill is provided with eight sieves, and when properly regulated, it perfectly separates and cleans all kinds of seeds. For instance, in cleaning wheat, it will separate whatever timothy seed may be mixed with it, leaving it in a box by itself. Some men have stated that they have saved in this way, timothy seed enough in one season to pay for the mill. There are four sizes, from No. 1 to No. 4, and the prices range from \$21 to \$27.



MOTT'S PORTABLE AGR'L FURNACE.

THIS is undoubtedly the best apparatus in use for cooking vegetables and other food for stock. It is likewise well adapted to household purposes, where water is required to be heated in large quantities. It is a double kettle or boiler, connected on the top of a box stove in such a manner, that the fire passes between the outer and inner kettles, which causes the water to boil in a short time, and with little fuel. There are several sizes, holding from fifteen to one hundred and twenty gallons, and they are sold at the following prices:

15 gallons,	\$9 00	60 gallons,	\$23 00
22 do.	12 00	80 do.	30 00
30 do.	15 00	90 do.	35 00
40 do.	18 00	120 do.	40 00
45 do.	20 00		

LIME AS MANURE.—Dr. Darlington, in a letter to the Ohio Cultivator, speaking of the use of lime, says, "The great secret, I believe, of improving land, is to manure well all the ground that is cultivated—and employ lime as an *auxiliary*"—by applying in rather small and repeated dressings while the land is in grass.

WHAT MANURE DOES THIS FIELD NEED?

THIS inquiry is beyond question one of the most frequent and important that presents itself to the farmer.

With the light which has, within the last few years, been thrown upon the subject of manures, their nature, and the secret of their value, something like a practical course has been revealed. It may be illustrated as follows:

If a soil fails to produce a given crop, it is because it either wants the *requisite texture*, or it wants certain essential inorganic ingredients, or it may be deficient in both.

If vegetable refuse in sufficient quantity has been strown over and plowed in, the deficiency of one or more *essential inorganic ingredients*, must be considered the solution of the failures.

Now how shall this deficiency be ascertained? How shall it be determined what a soil needs?

It may need gypsum, or phosphates, or potash, or soluble silica, or lime. It may be benefitted by ashes, or poudrette, or guano, or fish. But it probably does *not* need *all*, and would not, probably, be equally benefitted by them severally.

Which, then, shall be selected? How shall any one without aid, be enabled to determine what will benefit his soil *most*?

The following suggestions are made in general reply to this inquiry.

Having prepared a few square yards or rods, so that the texture shall be all that is desired, let equal areas—six feet square each, for example—be accurately measured and staked. If the soil in the same field be variable, each kind may be treated for a separate experiment.

Then let equal quantities by weight, of a thoroughly pure grain, wheat, or rye, or oats, or any other it may be desired to try, be sown and covered, in these several areas. Only one kind of grain will be employed in the experiment. If others are to be tried, let separate areas be selected and prepared—a suit for each grain.

Then take small quantities of gypsum, potash, soda, ashes, bone-dust treated with diluted sulphuric acid, night soil, or any of the so called manures it may be wished to try, and put them upon or near the surface of the soil. If deeply buried, they might be dissolved by rains, and carried down beyond the reach of roots.

Now all will receive from the frost, the rains, the dew, the sunshine, and the drouth, the same treatment. From the native soil they will derive equal measures of nutriment.

But from the added manures they will derive unequal advantage. Some of the additions will contain a desired ingredient—others will not; and the relative values will be indicated in the relative weights of the ripened grain at harvest.

The seed was weighed. The harvest must be weighed. The better manure will be pointed out in the higher weight and plumper appearance of the grain.

That the manures may be compared, and the relative profits of this or that readily estimated, positive quantities should be employed, that is, such, that by measure or weight, the cost of that used may be accurately known.

The weighing for the occasion, if not otherwise convenient, might be made with the sugar and tea scales

of the nearest grocer. As the grain to be sown is, for each lesser piece of ground to be the same in weight, the quantity for one being determined, it may be placed in one scale pan, and the other parcels severally balanced against it.

There is some trouble in all this care about *quantities*; but if the conviction be deepened that a faithful attention to them is indispensable in experimentation that is to be of value, it may perhaps be more cheerfully engaged in.

It sometimes, indeed frequently, happens that farmers purchase large quantities of a given manure, because they have learned that it had been found serviceable in particular cases. They hope to reap a profit commensurate, within certain limits, with the amount of manure employed; regardless of the greater or less correspondence there may exist between the soils upon which it had been found profitable and their own. They employ it. They are disappointed. The manure does *not* contain what *their* soils need, though it may have been admirably suited to the improvement of others.

What the producer wishes in making purchases of raw material, is, to obtain as much of that which can be used, and as little of that to be thrown away, in a given quantity, as may be.

So with the grain grower. He wishes to pay for *just that* which will grow wheat, or corn, or oats. Other materials, of no service to the immediate crop, only to be washed away by rains before a seed demanding them shall be sown, he cares less to pay for.

E. N. HORSFORD.

Cambridge Laboratory, May, 1847.

NUTRIMENT IN DIFFERENT SUBSTANCES.—Dr. WARWICK, an English lecturer, gives an interesting comparison of the amount of nutriment contained in different vegetable and animal substances, and the time for their digestion. Of vegetables, he considers that beans contain most nutriment. As to animal substances, he remarked that mutton contained 29 per cent. of nutriment, beef 26, chicken 25, pork 24, cod and sole 21, haddock 18, &c. As to digestion, boiled rice occupied an hour, sago an hour and forty-five minutes, tapioca and barley two hours, stale bread two hours, new bread three hours, boiled cabbage four hours, oysters two and a half hours, salmon four hours. Venison chops one and a half—mutton three—beef three—roast pork five and a quarter—raw eggs two—soft boiled eggs eight—hard ditto, three and a half.

PUMPKIN CROP.—J. B. Noll, of Monroe county, Ohio, raised the past year on 97 rods of land, or a little less than five-eighths of an acre, about 19,000 lbs. of pumpkins, besides 70 bushels of potatoes, and 20 bushels corn. Most of the pumpkins averaged 21 lbs. each—five averaged 83 lbs. each. The pumpkins were at the rate of about 15 tons to the acre.

DURABILITY OF MANURE.—A writer in the Farmer and Mechanic states that he has noticed the bottoms of coal-pits, between 65 and 70 years after the burning, so fertile that they invariably bore heavy crops of grass or grain. This manure, it is known, consists of burnt earth, ashes, charcoal, &c. Common barn manure becomes nearly or wholly exhausted in a comparatively short period.

AGRICULTURE AND RURAL ECONOMY OF EUROPE.

NOTES OF A TRAVELLER IN ENGLAND--No.6.

LABORERS.—The condition and character of the laboring population in England, is widely different from that of the same class of persons in this country. The laborers there have no more associations with the nobility, gentry, and larger tenant farmers, than have the slaves at the south with their masters. The line of demarkation is as decided and as stringent in the one case as in the other. Never have I seen a laborer approach the farmer without doffing his hat, and in various other ways manifesting the utmost servility. The prospect of their condition being altered, in the present state of things, seems utterly hopeless. Their opportunities for education are of the most meagre description at the best, and the scantiness of their wages prevents them from resorting to any special conveniences for their improvement, or for the education of their children.

I found on conversing with them, that they were just able to live, with all their time devoted to the interests of the landlord or farmer, together with the services of their wives and children, when married. The children, at a very tender age, are brought into the field to labor, and thus continue on through life, and in many cases with little more intelligence, apparently, than the animals upon the farm. The wages which a man receives would not vary much from \$8 or \$9 per month, in those parts of the kingdom I visited. This does not include his board—that he must provide for himself. This is usually very scanty, as compared with the provision made for laborers in this country. In the morning a little bread, and coffee, and oatmeal; at noon, bread, potatoes, and cabbage, or something of the kind, and supper equally limited. Beer in some cases allowed daily, in addition to wages, but not very general. I frequently conversed with them on their prospects for the future, and found almost invariably, that they were toiling on without hope, except to provide for their daily wants—never expecting to procure a competency for their families in the event of their being removed by death.

In Wales, where living is cheap, oatmeal being a very prominent and truly nutritious food, the laborers do rather better than in England. Still the hope of ever realizing anything for a wet day was scarcely thought of. I met in Anglesea, Wales, a Welshman who had lived with me in America a year and a half, and who returned home in the fall of 1845, for the purpose of endeavoring to persuade his father's family to return with him to America. The family were in comfortable circumstances, and could have sold the lease of their farm of about 180 acres for a sum that would have purchased a large freehold in this country. The heads of the family were advanced in life, and the terrors of a sea voyage prevented their acceding to his request. He had been in America about six years, had labored very industriously, and had taken the precaution to place his wages at the end of each year at interest, (after clothing himself,) and when he returned to Wales he took with him \$500 in money, besides a supply of clothing that rendered him in the eyes of the Welsh, a man of wealth indeed. He went with me to church on the sabbath, with his blue Yankee coat, white hat, and the rest of his clothes to match, and in his outward appearance had no more resemblance to the native population than I had myself.

It was entirely beyond the comprehension of his family and of his neighbors how he could have acquired this money by his labor alone. When I arrived at the house, it was just about sunset in July, when the workmen had come in from their labor, and the appearance of a strange carriage coming up the lawn, drew all to the door; the Welshman recognized me at once, and addressed me by name, and as I descended from the carriage, I observed his mother was very much agitated, and addressed him earnestly in Welsh. I went into the house, and he left me for a few moments, and returning, informed me that his mother, on hearing my name, was so much affected, fearing I had come on account of the money he had brought with him—she never having been satisfied that he had honestly earned it. As the old lady could speak English readily, I was enabled to relieve her entirely, and to satisfy her that the labors of her son had been only justly rewarded with the amount which he had brought with him. It gave them an impression of the vast difference between the condition of a laboring man in Wales and America which nothing else could so effectually have done.

I was often surprised at the ignorance in relation to America, among not only the laboring classes, but also among farmers of considerable intelligence. In conversing with a farmer who held an important office in the parish where he resided, who was a man of wealth, and on matters relating to his own country was peculiarly intelligent, I stated to him, among other things, that a passage from New-York to Liverpool or London could ordinarily be made about as soon as from New-York to New Orleans. He was utterly astonished—supposing that these ports were not probably further distant from each other than London and Liverpool. But when I told him that the river on which New Orleans was situated was over 3000 miles in length, he looked at me as much as to say, *You must be a Yankee!* To satisfy him, however, I appealed to an atlas, which was fortunately in the house where we were visiting, and was enabled to satisfy him that this was literally true. His ideas of American rivers had never reached beyond the length of the Thames, or the Mersey, or some other of no greater magnitude.

In Ireland, too, it was not uncommon when it was ascertained that I was from New-York, to have inquiries made, if I did not know Patrick McQuade, or some other Irish friend who had settled in Wisconsin, Iowa, or New Orleans! I was often, as you may well imagine, obliged to say that I had not the pleasure of their acquaintance. To them this seemed passing strange.

There is a peculiar class among the Irish, the drivers of their jaunting cars, a vehicle in which the driver is in front, and the passengers set with their backs to each other, and their feet over the wheels. These are among the finest specimens of Irish ingenuity and wit of any class I met with. In riding from Drogheda to the railroad depot, in one of the cars, the driver began a conversation by inquiring of me—"Your honor came from Belfast by coach?" I answered him, No. "From Cork then?" and so on, until at last he ascertained that I was neither English, Scotch, or Irish, but actually from America, the land of bliss, in his imagination, and every inhabitant of which was truly the Irishman's friend. In the whole of this con-

versation, however, he had not directly asked me a question as from where I came, and yet succeeded eventually in ascertaining from me the place of my residence. I frequently rode in this method of conveyance, which is among the cheapest of any in which I ever travelled, and I always felt amply rewarded for my ride by the rich humor of the driver, as well as the fund of useful information ever at hand in answer to my inquiries, however unnecessary they may have been.

A brighter day, I trust, is dawning upon the down-trodden millions of Great Britain and Ireland, or rather for their children and successors. The subject of education, and that too of the masses, is one of the great measures of reform which is attracting attention everywhere in the kingdom. Lord John Russell, the present premier, put this forth as one of the great whig measures, on taking the seals of office. Sir Robert Peel, in his masterly speech on resigning his position as premier, and one of the ablest speeches ever made before the British Parliament by a retiring minister, when alluding to measures for the relief of Ireland, after saying that equal laws and privileges with England must be secured to her, added, and the education of her entire population must be secured, in order to give to Ireland what most of all she needed.

The following remarks before the Mechanics' Institution of Hastings and St. Leonard's, by a distinguished gentleman, J. H. Maw, Esq., on the subject, are worthy of consideration. "In every christian country, it must be desirable that all classes should, as far as possible, be united by ties of genuine fellowship; but it is

probable in no country are wide severing distinctions so conspicuous as in our own. Attempts have of late been made by certain chivalrous spirits among the great ones of the land, to break down some of these barriers; and it is allowed in such a place as Lord's cricket ground a mechanic may match himself with a Lord. Still we find in all other places the *noli me tangere*—the "touch me not" feeling, may remain as strong as ever. The fact is, that cricket is not the right remedy for the evil complained of. There is little if any virtue in it. But there is great virtue in such pursuits as ours, which have a direct tendency in many desirable respects, to assimilate the lower to the higher classes of society, and by assimilating, gradually to approximate, if not eventually to unite them."

The ball which has been set in motion, like that started by the corn law league at Manchester, will never rest until the work is accomplished. When this is done, some of the iron barriers that now separate the classes will be snapped in sunder, and they will find it a very different thing to govern minds from what it has been for centuries to govern mere machines. The extension of suffrage, the abolition of monopolies, and many other things, will follow. These things will move slowly, as everything does there but steam engines and race-horses, but they are sure to come; the decree has gone forth; and when they do come, the condition of millions will be improved beyond all calculation. They who do the labor, instead of being mere machines, will have become intelligent, and will see to it, that they too have something to do with the avails of their labor.

H.

SKETCHES OF FARMING IN WESTERN NEW-YORK.

In the latter part of June and beginning of July last, we had the opportunity of taking some hasty glances at some of the farms in Cayuga, Tompkins, Seneca, Ontario, and Onondaga counties.

Stopping at Auburn, we were accompanied by Col. SHERWOOD on a very pleasant excursion up the eastern shore of Cayuga Lake. Our first call was at the beautiful village of Aurora, where we attended an exhibition of the Aurora Horticultural Society, some notice of which will be found in another part of our work.

From Aurora we proceeded up the shore to Lake Ridge, Tompkins county, where we passed the night with our friend L. A. MORRELL, Esq. Mr. M. has been for some time engaged in sheep-husbandry, and is well known as the author of the valuable work entitled *The American Shepherd*. His home farm consists of 600 acres, and in connection with his brother he owns another farm, a few miles distant, of 400 acres. The home place is very pleasantly situated, forming, for the most part a gradual slope to the shore of the lake. The dwelling is near the centre of the farm, commanding an extensive view of the rich and beautiful country on both sides of the lake, in the counties of Tompkins, Cayuga, and Seneca.

Cultivation is not very extensively practiced, by Mr. M., a considerable portion of his farm not being naturally well adapted to the production of grain crops. He has now, however, commenced under-draining, a judicious execution of which will no doubt enable him to raise good wheat on fields where that crop has not hitherto been grown to advantage. The farm is particularly arranged for sheep, and is divided mostly into eight acre lots. The fences are of rails, of which there is from twenty-five to thirty miles! The sheep-pastures, on those portions of the farm which are best suited to

tillage, produce, after having been grazed a few years, excellent crops of wheat; and we here saw some of the best fields of that grain that we have met with the present season. On the whole farm there are about fifty acres of wheat, twenty of oats, and ten of Indian corn.

Mr. MORRELL's flock of sheep consists of 1,100. The blood is mostly Saxon, and the wool is considered of superior quality. We regret we did not see it—it had been just shipped for Mr. BLANCHARD's depot, at Kinderhook. Mr. M.'s reputation for cleansing and putting up fleeces, is of the best character. The average weight of the fleeces of his flock is about 2 $\frac{3}{4}$ lbs. He has lately purchased several rams from Mr. SAMUEL PATTERSON, of Washington county, Pa. They are of rather small size, but well formed, and produce very fine wool. Mr. M. has very confident expectations of improvement from the use of these animals in his flock. He has several lambs from them out of his best ewes, which look well. The management of his sheep in general, especially in regard to their feeding, shelter, &c., appears to be very judicious and economical. Care is taken that they have just the kind and quantity of food required to keep them in proper condition—neither too fat nor too lean. Both these extremes should be avoided. The former tends to a grossness of staple which deteriorates the value, and the latter to weakness of fibre, lightness of fleece and feebleness of constitution.

After leaving Mr. MORRELL, we called at MATHIAS HUTCHINSON's, King's Ferry. He has about 400 acres of prime land, and is a very snug and systematic farmer. Our stay was too short to admit of so minute an examination as we would have given, but from what we saw, it was evident that *order* is here the "first

law." Mr. H. keeps 350 Merino sheep. They are a good flock, of large size for the breed, and of strong constitution. He showed us their fleeces, which were cleaned to snowy whiteness, and put up in the most perfect style, and a room finished expressly for storing this article, and which was clean enough for a parlor. Of the ewes' fleeces, 95 averaged $4\frac{1}{2}$ lbs. each, and all the yearlings in the flock averaged $3\frac{1}{2}$ lbs. He has, for two or three years past, obtained 40 cents per lb. for his whole lot. He had not engaged the clip of the present year. The flock is managed with much care. Every sheep is numbered and registered in a book—every fleece is weighed, carefully examined by Mr. H. in person, and its appearance and quality particularly noted in the book.

We spent a few hours most agreeably with DAVID THOMAS, at Greatfield, near Aurora. He has for many years devoted himself to the cultivation of fruit, and by the dissemination of the choicest kinds, and by his useful example and influence in other respects—especially by the numerous and valuable productions of his pen—he has conferred very important benefits on the community, which will cause his name to be respected by coming generations. He has a large orchard, comprising the choicest apples, pears, peaches, cherries, plums, &c., and a large garden appropriated to the more tender fruits, flowers, and rare plants. The location is very favorable to fruit, as is also much of the country on the Cayuga and Seneca lakes. The immense depth of these waters, which are seldom or never frozen over, causes the temperature to be greatly modified, and produces along their borders a climate corresponding to a latitude several degrees further south. This was strikingly observed in the ripeness of fruits and the forwardness of vegetation generally, as contrasted with the same parallel on the Hudson river.

But besides the advantages of climate, this region is favored with a soil remarkably well suited to the growth of fruit trees and the production of fine fruit, and the fact is worthy of remembrance that before the country came into the occupancy of the whites, the Indians had here introduced, to a considerable extent, the apple, and in several instances, the pear, the peach, and the plum. In the journals kept by the officers who accompanied Gen. SULLIVAN in his expedition up the Susquehanna, for the purpose of destroying the Indian settlements on these lakes, in 1779, mention is frequently made of fine apple and other fruit trees having been cut down by our army in their devastating march through the country. SCHOOLCRAFT, in his *Report on the Iroquois*, 1846, observes in relation to the fondness of the Indians for the apple—"From the earliest introduction of this fruit into New-York and New France, from the genial plains of Holland and Normandy, these tribes appear to have been captivated by its taste, and they lost no time in transplanting it by sowing the seeds, to the sites of their ancient castles." On these warm and fertile locations, they flourished well; and nowhere else in the whole country, we believe, were found among these people such numbers of fine fruit trees, some of which, having escaped the general destruction above-named, are still standing—*mementos*, at once, of the rapid decline of the red man, and of our own rapid progress and increase.

A little below Aurora, we passed the handsome farm of Mr. GRINNELL, who we learned was absent, so we did not stop to make a particular examination of the premises. The buildings and fences, as well as the farm generally, from what we could see, appear to be in complete order, and in connection with the natural beauty of the location, the farm unquestionably forms one of the most desirable residences in the country.

On returning to Auburn, we called at Springport, where are two remarkable Springs. They make their appearance a short distance from Cayuga lake, and by excavating cavities and forming embankments, reservoirs are made, each of which affords a good water power. At one of them is a large flouring mill, and at the other a woolen factory. The springs are supposed to be the outlets of subterranean streams from Owasco lake, near Auburn.

Passing up the railroad from Auburn, we stopped at Seneca Falls. Here we called on G. V. SACKETT, Esq., who, after having shown us his extensive and fertile farm, kindly volunteered to convey us to those places in the vicinity which were regarded as most interesting. Mr. S.'s home farm consists of 680 acres, the principal portion of which was in forest till within seven or eight years. The soil is of great richness, but lies, in some instances, a little too flat. The original growth was hickory, sugar maple, elm, ash, and poplar, (or tulip tree,) all of which grew to a very great size. Some of the forest which has lately been cleared, afforded sixty-eight cords of wood per acre. He is devoting his farm considerably to wheat. At the time of our visit he was cross-plowing his wheat fallows, of which he had sixty acres that had been broken up from sward in the spring, to the depth of full seven inches. He has lately built a convenient and substantial grain barn. It is eighty feet long by forty-six wide. It has a basement story seven and a half feet high—the walls of stone, two and a half to three feet thick. It has two floors running crosswise of the barn—one of them is between two bays, which go to the bottom of the basement, and the other is at one end of the barn, over the stalls for horses. Under the first-mentioned floor, there is a grain bay, made perfectly tight with mortar of water-lime, and of sufficient capacity to hold 2,500 bushels of clean wheat. There are on the farm 400 sheep, and Mr. S. intends hereafter to keep from 1000 to 1500.

FREDERICK J. SWABY, Seneca Falls, has a farm of 350 acres, which he has lately purchased—the present being the first crops of his own raising. He is from the vicinity of Philadelphia, Pa. His farm has not, apparently, been well managed previous to coming into his possession; but bids fair to become a first-rate grain farm. Mr. S. has forty acres of wheat, which looks the best of any we saw in the neighborhood. He has practised, in Pennsylvania, plowing in clover, as a means of improving the soil for wheat. He thinks it of the greatest benefit to plow in the clover after it is ripe—if turned in while it is green and full of sap, he thinks it makes the ground *sour*. (Our readers will remember that we have several times spoken in the *Cultivator* of green clover having produced an effect similar to what is here mentioned.) Mr. SWABY is a young man who has lately commenced operations for himself, but appearances indicate that he will make a successful farmer.

Mr. SACKETT mentioned to us several examples of profitable farming. JOHN HOSTER, lately deceased, commenced farming with fifty acres of land, which at that time was reckoned worth \$400 to \$500, and this was all the property he possessed. He died at the age of 48 years, and his property was appraised at \$40,000. This was free and clear of all encumbrances, and had been acquired *wholly* by farming.

GEORGE GAMBER commenced by renting of Mr. SACKETT eighty-five acres of cleared land, which cost \$45 per acre. He took the farm for three years at the "halves." During that time Mr. S. received equal to ten per cent interest on the cost of the land, and the tenant laid by so much money that at the expiration of the three years he bought a farm, towards the payment of which he advanced \$1,800. He married,

however, about this time, and received \$600 by his wife—the remaining \$1,200 he made in the three years he rented the farm of Mr. S. Wheat and clover seed were his leading crops. He is now considered wealthy. We passed his farm, and were pleased with its neat appearance, and with the fine wheat, barley, and corn crops we saw on it.

From the western shore of Cayuga Lake, we passed over Seneca county to the eastern shore of Seneca lake.

At Oaklands we called on JOHN DELAFIELD, Esq., formerly of the city of New-York. His farm consists of 352 acres. He has resided on it four years, and has during that time made very great improvements. All the buildings, with the exception of a part of the house, have been put up by Mr. D., as well as nearly all the fences. He has proceeded in the most thorough manner with all his fixtures. His farm is well laid out, and all his expenditures have been on a liberal, but judicious and economical scale. His principal barn is sixty-five feet long by forty-two wide. There is a cellar ten feet deep under it, which is divided into various apartments. Some of them are made perfectly tight and free from dampness, for storing grain. Others are used for storing vegetables, and others for storing chaff and cut fodder. Attached to the barn is a shed sixty-two feet long and twenty-six wide. Apartments for the cattle are provided in one portion of the shed, and another portion affords shelter to a flock of 350 sheep. A stationary horse-power, on which six horses, if needed, can be worked, is placed in the barn. By this power he threshes and winnows his grain, cuts all his hay, straw, corn-stalks, and other fodder, cuts wood, cuts boards and timber into various shapes and sizes, and grinds corn, (cob and all,) or other grain.

The grain is threshed on the second floor. It is at once separated from the straw by an apparatus used for the purpose, and passes into the fanning-mill, which is in the basement, and is worked at the same time and by the same power which carries the thresher.

The chaff from all kinds of grain is stowed away in bins, and used for feeding stock in winter. This, with cut straw and corn stalks, furnishes the only food given to cattle from the time they come off the grass till the first of February. The mode of feeding is somewhat peculiar. One of MOTT's agricultural furnaces, of a large size, is placed in an apartment in the barn cellar, which is fitted for the purpose. In this a quantity of water is heated. Barrels are provided, into each of which is put a quantity of the chaff or cut fodder. When the water boils, a sufficient quantity of it is turned into each barrel to completely moisten the straw or chaff, and the barrels instantly covered. In a few hours the chaff is cooked, when it is fed to the cattle, who eat it readily, and Mr. D. thinks do much better on it than on dry fodder. This course is pursued twice a day, so that the cattle are always fed with the chaff before it is cold. Mr. D. assures us that he has succeeded in keeping his cattle in fair condition on this food for the time mentioned. After the first of February, hay is fed, and if the condition of the animals requires it, meal or roots are added.

The great advantage, Mr. D. thinks, from cutting all the fodder, is, that the poorer parts, or what is not used as food, are more quickly converted into manure. The coarsest straw and the largest corn-stalks are readily worked into the manure—absorbing the liquids, and soon undergoing such a decomposition that they can be used to advantage for crops.

Mr. D. makes a great saving of hand labor and a saving of expense by the use of machinery. We have alluded to the different kinds of work accomplished by the horse power. In addition to this, he has machines

for sowing grain of all kinds, harvesting grain, planting corn, beans, peas, and other kinds of seeds. The sowing machine is SEYMOUR's. It is adapted to sowing all kinds of grain, clover, and grass seeds, broadcast, as well as to sowing plaster, ashes, bone-dust, poudrette, &c. It performs its various operations with great exactness—regulating the quantity of seed to a quart per acre. It is drawn by a horse, and requires but one man to tend it. Twenty acres a day, on land in proper condition, may be considered a fair average of its performance. We saw several fields of wheat, barley, and oats, which were sown by this machine, and the crops stood better and were more even on the ground than hand-sown grain usually is. The cost of the machine is \$45.

The harvesting machine is HUSSEY's. It has been used by Mr. D. two seasons, and is much approved. It cuts the grain very clean, leaves it in good order to take up, and makes a great saving of expense. It requires a force of two men and a boy, and two horses, and will cut seventeen acres per day. It cost \$100. It is a simple and strong machine, not liable to break or get out of order.

Mr. D., for the past season, used EMERY's seed planter in putting in his corn. He showed us twenty-five acres of corn, which stood well, and which was planted by this machine in two days. It is drawn by a horse, and requires one man to manage it.

Mr. DELAFIELD's fences are mostly rails, put up in a superior manner. The stakes are placed at the corners (the fence being of the *worm* fashion,) upright, and are fastened by iron wire, twisted in the form of a withe. If properly put on, the wires need no attention, as long as the stakes last. They do not prevent the stakes being driven into the ground, as is rendered necessary by the heaving of frost or the decay of the bottoms. Their first cost is less than two cents per pannel.

We were highly gratified with the system, order, and neatness, observable in every department of Mr. DELAFIELD's farming. At the foundation of all, he has laid a comprehensive and well-arranged plan; next, he has provided everything for the performance of the various operations in the best manner; next he has provided a *place* for everything; and lastly, he has established a rule, which appears to be punctually observed by every individual on the farm, that *everything shall be in its place*.

Every person employed on the farm, is furnished with a printed card, comprising the rules and regulations. Believing that these rules may be beneficially adopted by others, we subjoin them:

It is expected that all persons employed on the OAKLANDS FARM, will carefully attend to the following system:

Regularity in hours.

Punctuality in cleaning and putting away implements.

Humanity to all the animals.

Neatness and cleanliness in personal appearance.

Decency in deportment and conversation.

Implicit obedience to the proprietor and foreman.

Ambition to learn and excel in farming.

Maxims of order and neatness.

1. Perform every operation in proper season.
2. Perform every operation in the best manner.
3. Complete every part of an operation as you proceed.
4. Finish one job before you begin another.
5. Leave your work and tools in an orderly manner.
6. Clean every tool when you leave off work.
7. Return every tool and implement to its place at night.

We shall continue our sketches next month.

THE ORCHARD AND THE GARDEN.

ALBANY AND RENSSELAER HORTICULTURAL SOCIETY.—An union Horticultural Society having been lately formed between the counties of Albany and Rensselaer, the first exhibition was held at the Geological Rooms, Albany, on the 3d of July. The show was all which could have been anticipated for the first effort, being indeed highly creditable in all respects. In the floral department, especially, there was a good display and quite a general competition. The principal contributors to the exhibition were Messrs. NEWCOMB, of Pittstown; WALSH, of Lansingburgh; WARREN, H. VAIL, D. D. Y. VAIL, of Troy; MENAND and MOORE, of Watervliet; DOUW, CHAPMAN, and HAYDOCK, of Greenbush; RATHBONE, PRENTICE, WENDELL, WILSON, HALL, KANOUSE, DENNISTON, and MARCH, of Albany. There were shown several fine varieties of cherries and strawberries. Mr. JAMES WILSON received the premium for Swainstone's seedling, as the best strawberry, and Dr. H. WENDELL the premium for the greatest number of varieties of cherries of the best quality. Among several other kinds, Dr. W. exhibited two which were raised by him from seed planted seven or eight years ago. One of them is decidedly of the Bigarreau class, and promises, when at maturity, to be a superior fruit, both in appearance and quality. The other seedling is of rather small size, but of very pleasant flavor. Being the first season that it has been tried, its character can hardly be fully determined.

The exhibitions of the Society are to be holden alternately at Albany and Troy, on the first and third Saturdays of each month, during the warm season, and monthly the remainder of the year. There is every prospect that the society will be productive of great benefit to the section in which it is located, and we have no doubt that it will have the liberal support of the citizens of Albany and Troy, and the friends of horticulture generally in the vicinity.

HORTICULTURAL EXHIBITION AT AURORA.—We had the pleasure of attending a Horticultural exhibition at Aurora, Cayuga county, on the 23d of June last. There was a fine show of the fruits, vegetables, and flowers of the season. Of strawberries there was a good assortment, which were generally of superior quality. HENRY MORGAN, Esq., of Aurora, presented several varieties; among them were some of very large size labelled rather inappropriately, "Aurora Dwarf." They might have been better styled *giants* than *dwarfs*. Some, however, believed them to be Ross's *Phœnix*. But from superior cultivation, or some other cause, they had attained a most uncommon size—one berry being $5\frac{1}{4}$ inches in circumference, and in a large dish full there were none of much smaller size. It was rather early in the season for cherries, but there were fine specimens of the Mayduke, Bigarreau, and Black Tartarian—the two latter not quite ripe. Of vegetables, there were fine cauliflowers, new potatoes of good size for table use, pie-plant of different varieties, &c. There was a handsome display of roses and other flowers, which, under the direction of that zealous florist, Dr. THOMPSON, assisted by several devoted lady amateurs, made a most attractive appearance. The collection of roses, from the garden of DAVID THOMAS, Greatfield, near Aurora, for which he received the premium, was particularly fine. There were several splendid bouquets and ornaments of different kinds,

composed of flowers. A beautiful "floral design," somewhat unique in its character, was presented by Mrs. E. T. THROOP MARTIN, of Auburn. The flowers, comprising many varieties, were beautifully and tastefully blended, and pressed in a frame under glass in such a manner as to resemble, at a little distance, a splendid painting. Being kept from the air they do not quickly fade, but retain for some time their fresh natural tints.

The occasion called together quite a numerous assemblage of persons of both sexes; and not less interesting to us than any other part of the exhibition, was the kind social feeling, and the spirit of generous rivalry in the improvement of the products of the garden and orchard, which appeared to be generally diffused. The Aurora Horticultural Society has existed but for a few years, though the community here, through the influence of some distinguished cultivators, has long been celebrated for rural taste, and for the production of choice fruits.

BLIGHT IN FRUIT TREES.—In our last number, we spoke of a blight in apple trees, similar to the "fire blight." Since then, we have noticed, in a tour through several counties in western New-York, that the apple, pear, quince, and in several instances, thorns of various kinds, are more or less affected by the malady mentioned. Some believe it to have been occasioned by a frost, which, it is said, occurred a few nights previous to its first appearance. On the night alluded to, it was expected by many that there would be a frost, which, by fishermen and others who were out at twelve or one o'clock, was found to have taken place to such a degree that the leaves of trees were frozen, and the grass was crisp under foot; but a south wind which set in about the middle of the night, so raised the temperature that before sunrise the next morning, the frost had all been dissipated, leaving vegetation apparently uninjured. At present, it is difficult for us to reconcile with this conjecture, all the facts connected with the blight. Trees are attacked in some situations, where it is pretty certain, from close observation, that no frost occurred for two or three weeks before the appearance of the blight. Dr. HERMAN WENDELL, of this city, lately showed us a small pear tree which was brought from the interior of France last fall, and was not unpacked till very late last spring, the planting being purposely deferred till late in the season, in order to be certain of mild weather afterwards. Dr. W. is confident that no frost has occurred since the tree was set, as the most tender plants in the garden have exhibited none of its effects, but the tree is badly affected by blight, and will be probably ruined. For ourselves, we must wait for more knowledge and more facts, before we shall venture any conclusion in regard to the cause of the malady in question.

SALT FOR PLUM TREES.—Judge CHEEVER, has called on us to say that he had lost three plum trees in consequence of putting salt round them. The trees were from two to three inches in diameter, and he used two quarts of salt to each. He was induced to apply the salt in consequence of having seen it recommended as a remedy for certain diseases in the plum tree, and as a promotive, also, of their growth and thrift. As to the quantity, he *thought* he had seen it advised in the *Cultivator*. In this we think he must have been mistaken, as we can find nothing of the kind. In the

Horticulturist for December, is a communication from S. A. SHURTLEFF, M. D., of Brookline, near Boston, in which he states that in the winter of 1839-'40, he gave each of his plum trees a "dressing of about two quarts of salt." He was careful, however, not to put it nearer than a foot to the body of the tree. The salt was that which had been used for pork, and he cautioned the gardener not to use the brine; but he notwithstanding, did use about a gallon of it round one tree, which killed it. Dr. S. states that he used salt in the same way the next season, and, as he thinks, with beneficial results, so much so that he is "fully convinced that it is, if properly and judiciously used, a sure preventive of both the fungus [*black knot* or *wart*,] and the curculio." We should be glad to hear from others who have tried salt for plum trees, and hope results will be furnished for the benefit of the public. It is in this way only that we can ascertain with certainty the specific operation of any substance.

SIZE OF CHERRIES.

In the larger fruits, as apples or pears, magnitude is usually regarded as the first excellence, and fine quality next; huge, coarse fruits being often preferred to those of moderate size, though of the most delicious flavor. In other words, *show* is considered more desirable than real merit. Among smaller fruits, as cherries and strawberries, where gathering is a chief labor, it becomes quite important to procure if possible, those of a respectable size. For market, a cherry of a fine showy appearance, will command a price nearly double that of one of only a medium aspect. The present season, fruit pedlars paid five dollars per bushel on the tree for the Napoleon Bigarreau, more readily than three dollars for fruit of a medium size, though of better quality.

To those who have not made careful comparison of the various sizes of cherries, measurements of the dimensions of some of the more celebrated sorts may prove useful and interesting. They are taken from fair specimens under good culture—not larger than may be found in large numbers on every healthy and vigorous tree.

LARGE CHERRIES.

Napoleon Bigarreau—this is perhaps the most uniformly large cherry as yet much cultivated—one inch wide, and twenty-three twenty-fourths of an inch long (from stem to apex.)

Black Tartarian—same size as the preceding, when under the best culture,—but more liable to vary to a smaller size.

Yellow Spanish—1 inch wide, 7-8ths long.

Large White Bigarreau—15-16ths wide, and 1 inch long.

Holland Bigarreau—one thirtieth less each way than the last.

Downton—11-12ths of an inch wide, and 7-8ths long.

Carnation—11-12ths wide, and 4-5ths long.

Large English Morello—11-12ths wide and long.

Knight's Early Black—23-24ths wide, 7-8ths long, 3-4ths thick.

Belle Magnifique—same size as the last.

Black Eagle—23-24ths wide, 4-5ths long.

Florence—23-24ths wide, 3-4ths long.

Elk Horn—7-8ths wide and long.

MEDIUM IN SIZE.

American Heart—7-8ths wide, 19-24ths long.

Sparhawk's Honey—19-24ths wide, 3-4ths long.

Gridley—nearly 7-8ths wide, 3-4ths long.

Downer's Red—5-6ths wide, 3-4ths long.

Madison Bigarreau—same size as last.

Belle de Choisy—7-8ths wide, 3-4ths long.

Early Purple Guigne—7-8ths wide, 19-24ths long.

May Bigarreau—largest specimens. 3-4ths wide and long.

The Napoleon Bigarreau, from its large size, great productiveness, and firm flesh, is eminently fitted for marketing, though of only second rate flavor. The Black Tartarian, not less productive, is usually a little less in size, and on old trees much less; but excels the former in flavor. The Yellow Spanish is nearly as large as the Napoleon, and rather superior in quality, and is besides a fruit of great beauty. The Early purple Guigne and May Bigarreau, though not so large nor so fine as many others, will always be valuable for market, from their very early maturity, being one or two weeks sooner than almost any other variety. Among those of large size, and of the very finest flavor, may be named Knight's Early Black, and Black Eagle, Downton, American Heart, Large White Bigarreau, Downer's Red, Florence and Sparhawk's Honey.

PROTECTION OF FRUIT.—"Well, well," said the old man, "if neither words nor grass will do, I must try what virtue there is in stones."

Moral.—"If good words and gentle means will not reclaim the wicked, they must be dealt with in a more severe manner."—Noah Webster.

Much has been said and written upon the subject of protecting fruit from being stolen, and many laws have been enacted for the same purpose; but still I presume all persons who have attempted to cultivate choice fruit have been more or less annoyed by having their fruit pilfered by school boys and loafers, and sometimes by persons who would not like to be classed with either. Writers upon the subject of Fruit Culture have suggested various remedies for this evil, but so far as I recollect, I have never seen one that I thought would be effectual in accomplishing the object. The idea of making fruit so plenty as to prevent its being stolen is impracticable, for the reason that so long as there is one variety better than another, it will be a sure mark for the pilferer. Fences and walls can hardly be built that will be a sufficient protection, without they are so expensive as to preclude their general adoption, and dogs and hedges cannot be said to be always sure of accomplishing the object. Living in a village where are several large public schools, in which, "respect for a neighbor's fruit," 't would seem, is not one of their studies, I have formerly suffered and been much annoyed by having my fruit stolen—particularly my choice early fruit. A remedy, which I have proved for several years, but which is not original with me, I have found entirely satisfactory, and can recommend it to all fruit culturists, as cheap, safe, and sure. A few applications in each season will correct the worst neighborhood. The remedy is this: Procure from some druggist an ounce of tartar emetic; dissolve a small quantity in warm water; then select some choice specimens of fruit on the trees you wish to protect, and dip the fruit into the preparation, marking the fruit in some way that you will know yourself. A person after once trying fruit well prepared in this manner, seldom, if ever, has a relish for more; in fact, it gives him a sort of a loathing of even the sight of the tree, so that he will never approach it the second time with a view of stealing your fruit. This remedy is simple, and easy of application, and sure of producing the effect desired, and is applicable alike to all fruits, whether small or large. J.

The *Ohio Cultivator* asks if there was not some mistake in the recipe for making soap, published in our January number. There was a mistake in giving one ounce of soda instead of one pound. The error, however, was corrected in the March number, and we are sorry our friend did not read with sufficient attention to discover it.

MONTHLY NOTICES—TO CORRESPONDENTS, &c.

COMMUNICATIONS have been received during the past month, from A. M., Equus, Prof. Horsford, L., Augusta, A Farmer, B. D. Loughton, Geo. Hapgood, S. M. Brown, W., F. G. Ruffin, N. H., H., Wm. Jenkinson, B. Hubbard, A Subscriber, D. L. Saydam, Wm. R. Prince, Dr. M. W. Philips, Caius, S., A. Doubleday, Bailey, H. A. P., C. H., A. of the North, W. Bacon.

BOOKS, PAMPHLETS, &c., have been received as follows:—First Report of the Trumbull (O.) Co. Ag. Society, from F. E. STOWE, Esq.—Turnep Husbandry: a series of papers on the Culture and Application of that important root. By DAVID F. JONES, with a Preface by Prof. Johnston. From the author, Edinburgh, Scotland. A most valuable treatise, to which we shall often have occasion to refer, and for which the author will please accept our thanks.—The numbers of the *London Agricultural Magazine*, for Jan., Feb., March, and April. From the Editor, F. CRISP, Esq.—Proceedings of the Agricultural and Mechanical Association of Louisiana, from B. M. Norman, Esq.—Account of the June Exhibition of the Long Island Hort. Society at Flushing, from G. WINTER, Esq.—Strawberries measuring $3\frac{1}{4}$ to $4\frac{1}{4}$ inches in circumference, from Messrs. TILDEN & Co., New-Lebanon.—The *Edinburgh Courant*, containing the Proceedings of the Highland Ag. Society of Scotland, from some unknown friend.—Dealings with the firm of Dombey & Son, parts 8 and 9, from the publishers, LEA & BLANCHARD, Philadelphia.—The Pig: a treatise on the breeding, Management, Feeding, and Medical Treatment of Swine, by Wm. Youatt. From the Publishers, LEA & BLANCHARD, Philadelphia.—Agricultural Botany, by WM. DARLINGTON, M. D., from the Author.

DEATH OF THE EDITOR OF THE SOUTHERN CULTIVATOR.—It is with much regret that we hear of the death of JAMES CAMAK, Esq., late editor of the *Southern Cultivator*. He died at his residence in Athens, Georgia, on the 16th of June last, at the age of 52 years. Mr. CAMAK was widely known as an able agricultural writer, and for several years has conducted the journal named, in a style which has eminently entitled it to the respect and patronage of the public, and through which his labors have been highly beneficial. We have no doubt that his death is, as a cotemporary observes, a public loss, which will be deeply regretted by all who knew him.

LARGE FLEECE.—J. H. REID, Esq., of Fredericton, New-Brunswick, a gentleman who has been indefatigable in his efforts for the improvement of all kinds of farm stock in that Province, informs us that he has a Lincoln ram, one year old, whose fleece, this year, weighed $12\frac{1}{4}$ lbs. Mr. R. also has the pure Leicester sheep, and the Berkshire, Sussex, and Mackay pigs. He prefers the Berkshires, and says that he can make one half more pork on the same feed, with this breed, than with any other. Of Poultry, he has several kinds, including the Dorkings, Bucks county, and Spanish, and he likes the latter best.

HAWTHORN HEDGES.—We have remarked that the Hawthorn does not appear to succeed well for hedges, in the Eastern States, and along the banks of the Hudson river. It is subject to a blight which strikes it in August, and by which it is often much injured. Noticing, lately, some very healthy hedges of this thorn in Western New-York, we inquired the course which had been pur-

sued with it. We were told that it had been always free from disease, and made a rapid growth. At the residences of G. V. SACKETT and F. J. SWABY, Seneca Falls, we noticed very fine Hawthorn hedges. The soil where they stood, was rather flat and compact, and we should think would be surcharged with water at certain seasons of the year. Mr. S. informed us that trenches two feet deep, were dug and nearly filled with gravel, some loam being laid over it, till a slight ridge was formed, on which the hedge was planted. This was all the preparation, and we were told that all the hedges in this section so planted, had succeeded perfectly. We have no doubt of the advantage of this treatment in such soil as is mentioned; but do not recommend it in all cases.

SHORT HORNS FOR CANADA.—R. N. WATTS, Esq. of Grantham, Eastern township, Canada East, has lately purchased of E. P. PRENTICE, Esq., a Short-Horned cow and heifer. The cow, *Peggie*, is five years old, was by *Fairfax*, dam *Splendor*. She is fine in form, and has superior dairy qualities. The heifer, *Maggie*, is two years old, by *Fairfax*, dam *Aurora*. She is of good size and very superior points. For beauty of appearance and intrinsic value, no animals which we have known taken to our Canadian neighbors, are entitled to higher commendation than these.

SALE OF COL. SHERWOOD'S STOCK.—We trust it will be remembered by breeders and all persons interested in the improvement of cattle or sheep, that Col. SHERWOOD'S sale is to take place on the 8th of September next. A catalogue, containing the ages and pedigrees of the cattle, will be found in our advertising pages. Since the publication of our last number, we have seen his stock. We had previously seen but a few of the cattle, and but a small proportion of the sheep. Of the former, there are forty-five head of full blood Short-Horns, forty of which are to be sold without reserve. Among this number of animals, it is, of course, to be expected that there will be some variation of character and quality; and though it would be manifestly improper for us to particularize, we may be allowed to say that the well known popularity of the herd is supported by a critical examination. Many of the animals we consider of very superior excellence; and yet it is by no means improbable—such are the different opinions and fancies in regard to stock—that were we to designate our favorites, they would not be those which most purchasers would prefer. We therefore earnestly advise those who wish to procure good stock, to attend the sale in person and choose for themselves. The herd is in good condition—not clothed in artificial fat; but in just that state of thrift which good animals, fairly wintered, ought to show at the season of the year, (last of June,) when we examined them. It is Col. S.'s intention to restrict their food to grass only; but on his pastures we have no doubt they will make a rapid gain before the time of sale arrives.

It will be seen that Col. SHERWOOD offers at public sale a hundred Merino rams, sixty Merino ewes, and several South Down rams. We had the opportunity of making a pretty close examination of all his sheep, having witnessed the shearing of nearly the whole flock—the fleeces being put up and weighed separately, under our own eye. The general quality of the wool is indicated by the prices it has brought, for several years, being from thirty-nine to forty cents per pound. The present year's clip is unsold; but it is of

better average quality than any previous one, in consequence of the relative increase of the finer woolled stock. The flock comprises two or three families, the older individuals of which were bred by themselves. Thus there is what is called the "Yates flock," originally purchase of Mr. YATES, of Otsego county, which does not produce as fine wool as his other families, but are large-bodied, strong, hardy sheep, bearing heavy fleeces; and would be a valuable stock to carry to the prairies, or to sections where they would be subjected to considerable exposure and rough fare.

The following memorandum shows the weight of the fleeces of the different classes of ewes in the flock for the present year. They were washed on the 19th of June, shorn on the 28th, 29th, and 30th of that month.

Yates family, 22 ewes,	106 lbs. 8 oz.	averag'g	4 lbs. 9 oz.
Jewett do 13 do	48 14	"	3 12
Old flock, 25 do	81 14	"	3 4 2-5
Blakeslee family, 110 of which 47 were yearlings, 20 two-years-old, and 43 aged.	438 9	"	3 15 3/4
Sixty-four rams, Blakeslee family, of which 44 were yearlings, 11 two-years-old, and nine over that age.	340 6	"	5 5 1/2

In the Blakeslee family of ewes, there was one double fleece, (5 lbs. 6 oz.) and in the rams of that family two double fleeces, (16 lbs., and 12 lbs. 6 oz.) The above averages are exclusive of floor-locks—adding those, the total average is 4 lbs. 4 1-16 oz.

Some of Col. S.'s fleeces have been left with B. P. JOHNSON, esq, Secretary of the N. Y. State Agricultural Society, at the Society's rooms, old State Hall, where they may be examined.

The South-Down rams offered for sale by Col. S., are a capital lot, and will furnish an opportunity which other breeders of this valuable breed of sheep should improve, to obtain superior animals.

FINE STRAWBERRIES.—Messrs. TILDEN, of New-Lebanon, will accept our thanks for some handsome specimens of Hovey seedling strawberry. The measurements of some of the berries were 4 1/4, 4, 3 3/4, 3 1/2 inches in circumference.

MORGAN HORSE GEN. GIFFORD.—SQUIRE M. BROWN writes us:—"The *General Gifford* is doing well here. We select for him the best mares we have, and expect to rear from him a stock of horses of which we may justly be proud." Passing through Camillus a few weeks since, we had an opportunity of seeing this horse. He is an animal of great substance, spirit and action. He is heavier than many horses which appear to a cursory observer to be considerably larger. His precise weight, as we were informed by Mr. MUNRO, one of his owners, is 1,040 pounds. His patronage is even greater than is desired.

SEED OF THE TULIP TREE—*Liriodendron Tulipifera*. Information is wanted in regard to the mode of rearing this tree from seed. If any of our correspondents can furnish this information, they would confer a favor.

BLACK HAWK AND SIR HENRY.—In our July number, we published a communication from Messrs. SANDERSON & Co., of Burlington, Vt., in reference to the challenge of Messrs. HILL, of Bridport, contained in their advertisement in our May number. Messrs. S. & Co., as will have been seen, propose to exhibit their horse Sir Henry, against Black Hawk, on the condition expressed by the question—"which is the best horse, as

a getter of roadsters?" The principles by which the question should be settled, to be, substantially, the points and appearances of the horses and their progeny—the same to be judged of by individuals mutually agreed on.

We have received a note from Messrs. HILL, under date of 13th of July, requesting us to say that they will meet Sir Henry with Black Hawk at Saratoga, at the time of the Fair of the New-York State Agricultural Society—the points of excellence to be considered by the judges, to be as follows:

"1st, superiority of form; 2nd, ease and elegance of action; 3rd, greatest speed in trotting, to be tested by a match for the distance of ten miles—Black Hawk to be driven in harness, and his owners allowing Sir Henry to be either driven in harness or rode, and to have three minutes start. The horse, which in the opinion of the judges, excels in a majority of these requisites, to take the purse."

Messrs. HILL also say—"We are ready to meet Sanderson & Co. at Saratoga, and compare the merits of the stock of Black Hawk and Sir Henry, on sucking colts, yearlings, and two-year-olds—the purse to be from \$100 to \$200 each. This challenge to stand open six weeks."

BURR'S SEEDLING STRAWBERRIES.—We invite attention to the advertisement of Mr. BURR, of Columbus, Ohio, describing his seedling strawberries. Most of the varieties have been highly recommended by committees of the Columbus and Cincinnati Horticultural Societies. The committee of the Columbus Society are of opinion that for the soil and climate of that region, at least, several of the seedlings are superior to any other varieties in cultivation.

ANSWERS TO INQUIRIES.

.....

MEDITERRANEAN WHEAT.—C. P. Upperville, Va. This wheat has, so far as we have learned, done well in this State. You say it stands the winter and fly better than any other kind you have. Such, also, is its reputation here. It is about ten days earlier than most other kinds of winter wheat cultivated here. Millers, we are told, will not give so much for it by three to six cents per bushel, as for the best white wheat. As to the "favorite kind of wheat" here, we cannot say which it is. In Western New-York the White Flint, and SOULE's wheat are highly esteemed; but some kinds are best adapted to some sections or soils, and others to other sections.

CULTIVATORS.—A FARMER, Liberty Mills, Va.—We know of no cultivator which will reduce stiff soil, to a state suitable for Indian corn, without a previous preparation by a plow. The cut of a cultivator given in our February number for 1846, was copied from an English work. We have seen one or two of that kind of implements, which were imported to this country, but have not known any like them made here. We should suppose, however, that they might readily be made from the cut, by any man accustomed to such work. We cannot say whether either of the other kinds of cultivators, for which you inquire can be had south of New-York; but we do not think either of them would be adapted to your stiff soil. [See an article on cultivators in this number.] As to a *plow for stiff-clay soil*, we do not think the one you inquire for, would be best. We are not, at present, certain what kind kind would be most suitable.

LAMPAS.—B. D. L., Stratham, N. H. This affection is most common in young horses, while they are shedding their teeth; and it is supposed to arise, frequently from inflammation of the gums, which spreads to the bars across the roof of the mouth, causing them to swell, sometimes beyond the level of the teeth, and

preventing the horse from masticating his food. The pressure of substances taken into the mouth, on the inflamed or sore bars, occasions the horse pain, and he may refuse to eat any hard food. In ordinary cases, some laxative medicines will carry off the inflammation, and relieve the animal. It may, however, be expedient to lance the bars that are most swollen, which, causing a slight flow of blood, will soon reduce the fever and bring the parts to their natural condition. The practice of burning out the bars with a hot iron, is unnecessary and cruel.

NOTICES OF NEW PUBLICATIONS.

AGRICULTURAL BOTANY; an Enumeration and Description of Useful Plants and Weeds, which merit the notice, or require the attention of American agriculturists, by WILLIAM DARLINGTON, M. D.

This work is designed to promote among farmers a more precise knowledge of the scientific names and characteristics of those plants which more immediately require their attention, than is now generally possessed. It has been accomplished by a person well qualified for the task. Dr. DARLINGTON is widely known as a botanist, who has before rendered the cause of agriculture efficient aid by his scientific labors. The work before us cannot fail of being highly useful. It contains a copious glossary, with an index of common names and synonyms, and such other facilities that there can be no difficulty in becoming familiar with the terms employed, nor in the investigation of the nature of the plants described.

THE PIG: A Treatise on the Breeds, Management, Feeding, and Medical Treatment of Swine; with directions for Salting Pork and Curing Hams: by WILLIAM YOUATT, V. S. Philadelphia, Lea & Blanchard.

A few months since, the sudden death of the able author of this work was announced in the English papers. He had, however, nearly prepared the work for the press, and it has been issued with but little delay. It was intended as the last of a series drawn up by Mr. Y., under the direction of the British Society for the Diffusion of Useful Knowledge, and of which the valuable volumes on "The Horse," "Cattle," "Sheep," "The Dog," are well known, and justly esteemed. That part of the work devoted to the natural history of the pig, and the description of the various breeds, is interesting, though it does not, perhaps, evince as much care and research on this point, as some of Mr. Y.'s previous writings. He seems to have directed his principal efforts in this instance, to the subject of the diseases of swine, and in this respect the work is of much value,—undoubtedly superior to anything of the kind which has before appeared. Mr. YOUATT was an eminent veterinary surgeon, was editor of that highly useful work, the *Veterinarian*, was actively engaged in practice, and from his own observation was enabled to treat upon the nature and habits of animals which have heretofore been but little understood. Very useful directions are given in regard to the general management of swine, embracing the principles of breeding, fattening, &c., together with the directions for salting pork, and curing bacon and hams in the best manner. The engravings were drawn from life, by WM. HARVEY. A more particular notice of the contents of the work will be given next month.

NEW OXFORDSHIRE RAMS.

THE subscriber offers at public sale, on Wednesday, the first of September next, at his farm, (Marsh Mount,) near Delaware City, New Castle county, Delaware, twelve fine Long Woolled Shearling Bucks, the get of his imported Oxfordshire bucks, selected by himself out of the best flock in England, in 1815, and out of his best Leicester ewes. They will be numbered and sold by auction, without reserve, to the highest and best bidder. The sale will commence at 2 o'clock P. M. Terms cash. The subscriber will be pleased to see any gentleman who may favor him with his company.

August 1, 1847.—1t.

C. B. REYBOLD.

THE CULTIVATOR ALMANAC FOR 1848.

WE are now ready to receive orders for the CULTIVATOR ALMANAC for 1848, being the fifth year of its issue. The astronomical calculations, which are made for New-York city, are by G. R. PERKINS, Professor of Mathematics in the New-York State Normal School. In the variety of its contents, (consisting mainly of brief hints and suggestions on agricultural and horticultural matters, rural and domestic economy, &c.,) and in the number of its illustrations, it will be found superior to any of the previous numbers. It is furnished on the following terms: For 1,000 copies, \$15— for 2,000 or more, \$12.50 per 1,000—the purchaser to have the privilege of occupying the last page with advertisements, and his name inserted as publisher on the title page. Orders to be addressed to LUTHER TUCKER, Albany.

PRICES OF AGRICULTURAL PRODUCTS.

New-York, July 18, 1847.

FLOUR—The foreign news, which arrived yesterday, completely unsettled the market. Sales of Genesee were made before the announcement of the decline in England, at \$6.12½. At the close of the market there were buyers at \$5, and sellers at \$5.50, but no sales reported.

GRAIN—Wheat, prices unsettled. A quantity of Ohio white was sold, after the news, to fill up a vessel, at \$1.22. Corn exhibited a decline of about 10 c. per bushel. Northern yellow may be quoted at 60a62½c. Rye, nominal. Oats, 3a40c.

BUTTER—Orange County, per lb., 18a19c.—Western, dairy, 13a15 cents.

CHEESE—In casks and boxes, per lb., 6a7½c.

BEEF—Mess, per bbl., \$13. a \$13.50—Prime, \$9a\$9.50.

PORK—Mess, per bbl., \$15—Prime, \$9a9.50.

HAMS—per lb., smoked, 9a11c.

LARD—Per lb. 9a10½c.

HEMP—American, dew-rotted, per ton, \$100a\$110.

COTTON—New Orleans and Alabama per lb., 10a14c.—Upland, 10a12½c.

WOOL—(Boston prices,) July 17.

Prime or Saxon fleeces, washed per lb. 45a50 cts.

American full blood fleeces, 40a45 "

" three-fourths blood fleeces, 35a38 "

" half blood do 32a33 "

" one-fourth blood and common, 28a30 "

REMARKS.—Since our last, there have been two arrivals from England—the Caledonia on the 4th, and the Britannia on the 17th of July. A further decline in breadstuffs is announced by both. A letter dated Liverpool, July 4th, says—

"A signal depression has taken place in the corn market since the departure of the last steamer, attributable to many causes, but peculiarly to the prevalence of fine weather and the growing steadiness of the money market. Prices have become low beyond precedent. Large quantities of American flour were sold at 34s. per bbl., but that is a price which could not be realized for any considerable quantity to-day. Richmond and Alexandria are quoted at 33s. per bbl.; Philadelphia and Baltimore 32s. New Orleans and Ohio 31s.; and U. S. and Canada sour from 28s. to 29 s. per bbl. Indian corn has likewise suffered a material depression, and cannot be quoted higher than 44s. 6d., to 45s. per quarter. Inferior, sound, ranges from 32s. upward. Indian meal stands at 20s. to 21s. per bbl. of 196 lbs. The rumors of the potato disease are exceedingly conflicting and not reliable, and the growing crops are in a state of the utmost forwardness; the weather could scarcely be more favorable than it is."

The above prices are equal to about \$7.75 per bbl. for Ohio, and \$8.25 for Richmond and Alexandria flour; and about \$1 to \$1.40 per bushel for Indian corn. A rise in cotton is announced, but to what degree it has affected our markets, has not transpired.

GENEVA AGR'L FOUNDRY AND SHOPS.

THE subscriber has recently put in operation a new FOUNDRY AND MACHINE SHOP, intended chiefly for the manufacture of AGRICULTURAL IMPLEMENTS. A number of valuable improvements in various farming tools having been made and patented by his predecessor, (T. D. Burrall,) this establishment has been erected for the manufacture of these and such other implements as the market may require, and in order that purchasers may depend upon a genuine and well finished article. Among other things he has now on hand

Burrall's Patent Threshing and Clover Machines and Horse Powers
" " Shell Wheel Plows, greatly improved the present season.

Burrall's Patent Corn Shellers, Nos. 1 and 2, do. do.
Also, Subsoil, Corn, and Shovel Plows, Straw Cutters, of various kinds, Scrapers, Plow Points, Trimmings, &c., &c.

He intends adding to his present stock from time to time, by selections from the best articles in market; all which will be got up in the best style, and sold, wholesale and retail, on reasonable terms.

Mill Gearing, Castings of all kinds, pattern-making, &c., &c., executed on short notice.

E. J. BURRALL.

Geneva, August 1, 1847.—4t.

CATALOGUE OF IMPROVED SHORT-HORNED CATTLE AND MERINO SHEEP.

To be Sold on the 8th of September, 1847.

LIST of the herd of J. M. SHERWOOD, to be sold at auction, at his residence in the town of Auburn, on, Wednesday, 8th Sept., 1847, at 10 o'clock, A. M.

N. B. (C. H. B.) refers to Coates' Herd Book; and (A. H. B.) to American Herd Book.

Several of the cows have not yet calved, but will before the day of sale.

All the cows will be bulled by Symmetry, except when they are mentioned to the contrary.

In the Supplement will be found the pedigrees of the several bulls, which got the stock offered for sale; they will be referred to by Roman Capitals.

No. 1. *Stella*.—A white and red cow bred by Francis Rotch, Esq., of Butternuts, calved July, 1836, got by North Star. (C. H. B.) 2382.—Dam, Stately, by Young Denton, 963; g. d., Harriet, by Denton, 198; g. g. d., Henrietta, by Comet, 155; g. g. g. d., Hannah, by Henry, 301; g. g. g. g. d., by Danby, 190; g. g. g. g. g. d., by son of Favorite. This cow is a good milker, and received the prize as the best cow, at the N. Y. State Ag'l. Society's Exhibition at Syracuse, in 1841, and at Albany in 1842.

No. 2. *Sylph*.—A red and white cow, calved in July, 1841; got by "Archer," (A.) (C. H. B.) No. 3028. (A. H. B.) No. 10.—Dam, Stella, No. 1.

No. 3. *Sibyl*.—A red and white cow, calved in December, 1842; got by Archer, 3028, (A.)—Dam, Stella, No. 1.

No. 4. *Saltillo*.—A white roan bull calf, calved March, 1847; got by Symmetry, (B.)—Dam, Stella, No. 1.

No. 5. *Santa Anna*.—A red and white bull calf, calved in April, 1847; got by Symmetry, (B.)—Dam, Sylph, No. 2.

No. 6. *Sweetbriar*.—A red and white heifer, calved in April, 1846; got by Arrow, (C.) (A. H. B.) No. 11.—Dam Sibyl, No. 3.

No. 7. *Seneca Chief*.—A roan bull calf, calved in April, 1847; got by Symmetry, (B.)—Dam, Sybil, No. 3.

No. 8. *Delight*.—A white cow, bred by Francis Rotch, Esq., of Butternuts, calved May, 1835; got by Devonshire, (D.) (C. H. B.) 966, and (A. H. B.) 51.—Dam, Daisy, by Admiral, (C. H. B.) 1603; g. d., Yellow Rose, by Young Denton, 963; g. g. d., Arabella, by North Star, 460; g. g. g. d., Aurora, by Comet, 155; g. g. g. g. d., by Henry, 301; g. g. g. g. g. d., by Danby, 190.

No. 9. *Milcha*.—A cow, in color white, with red ears and muzzle, calved April, 1842; got by May Duke, (E.) (A. H. B.) 102.—Dam, Delight, No. 8.

No. 10. *Dahlia*.—A white cow, calved July, 1843; got by Archer, 3028, (A.)—Dam, Delight, No. 8.

No. 11. *Diana*.—A white heifer calf, calved March, 1847; got by Symmetry, (B.)—Dam, Delight, No. 8.

No. 12. *Miami*.—A cow, in color white, with red ears and muzzle, calved April, 1844; got by Archer, 3028, (A.)—Dam, Milcha, No. 9.

No. 13. *Maid of Auburn*.—A white heifer, calved March, 1845; got by Archer, 3028, (A.)—Dam, Milcha, No. 9.

No. 14. *Daphne*.—A white heifer, calved April, 1846; got by Mr. George Vail's bull, Meteor, full brother to my bull Symmetry—Dam, Dahlia, No. 10.

No. 15. *Dandelion*.—A red and white heifer calf, calved May, 1847; got by Symmetry, (B.)—Dam, Dahlia, No. 10.

No. 16. *Daffodil*.—A red and white heifer calf, calved May, 1847; got by Symmetry, (B.)—Dam, Dairy Maid, out of Delight, No. 8, and by Archer, 3028, (A.)

No. 17. *Mohawk*.—A white bull calf, calved April, 1847; got by Symmetry, (B.)—Dam, Miami, No. 12.

No. 18. *Norna*.—A red and white cow, a splendid milker, bred by H. S. Randall, Esq., of Cortland village, calved December, 1840; got by Volunteer, (bred by F. Rotch, Esq., (C. H. B.) 5578.—Dam, Niobe, bred by F. Rotch, Esq., by American Comet, 1638; g. d., Norah, by Frederick, 2038; g. g. d., Nonpareil, by Young Denton, 963; g. g. g. d., Arabella, by North Star, 460; g. g. g. g. d., Aurora, by Comet, 155; g. g. g. g. g. d., by Henry, 301; g. g. g. g. g. g. d., by Danby, 190.

No. 19. *No-See*.—A roan heifer, calved March, 1845, (bullied in 1847 by Pontoosic, No. 26,) got by Archer, 3028, (A.)—Dam, Norna, No. 18.

No. 20. *Naid*.—A red and white heifer, calved April, 1846; got by Archer, 3028, (A.)—Dam Norna, No. 18.

No. 21. *Nebo*.—A roan bull calf, calved May, 1847; got by Symmetry, (B.)—Dam, Norna, No. 18.

No. 22. *Philipena*.—A white cow calved in March 1842. This cow took the prize for the best cow at the State Fair at Utica, in 1845. Got by Archer, 328, (A.)—Dam, Pansy 2d, (bred by the Hon. S. Van Rensselaer, of Albany.) This cow took the prize for the best cow at the State Fair at Rochester, in 1843; by Ajax, (C. H. B.) No. 2944, (bred by Hon. S. Van Rensselaer,) g. d., Sprightly, by Washington, 1566; g. g. d., Pansy, (imported by Hon. S. Van Rensselaer,) by Blaize, 76; g. g. g. d., Primrose, by Charles, 127; g. g. g. g. d., by Blythe Comet, 85; g. g. g. g. g. d., by Prince, 521; g. g. g. g. g. g. d., by Patriot, 456.

No. 23. *Pocahontas*.—A roan cow, calved in January, 1844; got by Archer, 3028, (A.)—Dam, Pansy 2d. For full pedigree, see Philipena, No. 22, being a full sister.

No. 24. *Owasco*.—A white bull calf calved April, 1847; got by Symmetry, (B.)—Dam, Pansy 2d. See pedigree of No. 22.

No. 25. *Potowatamie*.—A red and white cow, calved in June, 1844; got by Arrow, (C.)—Dam, Philipena, No. 22.

No. 26. *Pontoosic*.—A roan bull calved in August, 1846; got by Symmetry, (B.)—Dam, Philipena, No. 22.

No. 27. *Pontiac*.—A roan bull calf, calved May, 1847; got by Symmetry, (B.)—Dam, Pocahontas, No. 23.

No. 28. *Puebla*.—A roan bull calf, calved May, 1847; got by Symmetry, (B.)—Dam, Potowatamie, No. 25.

No. 29. *Lillias*.—A white cow, calved in September, 1841; got by May Duke, (A. H. B. 102.)—Dam Lilly, [American Herd Book, page 195.] by Windle, (C. H. B.) 5667; g. d., Netherby,* by Monarch, 4494; g. g. d., Sweetbriar, by Barnpton, 54; g. g. g. d., Roseberry, by Western Comet, 689; g. g. g. g. d., by Comet, 155; g. g. g. g. g. d., by a son of Favorite, 252; g. g. g. g. g. g. d., by Cupid, 177; g. g. g. g. g. g. g. d., by Favorite, 252.

No. 30. *Lois*.—A roan cow, calved in December, 1842; got by Archer, 3028, (A.)—Dam, Lillias. Half sister to Lillias, No. 29. See pedigree of No. 29.

No. 31. *Lalla Rookh*.—A white cow calved in January, 1844; got by Archer, 3028, (A.)—Dam Lilly. For pedigree see No. 29.

No. 32. *La-Quae*.—A roan cow, calved in January, 1845; got by Archer, 3028, (A.)—Dam, Lilly. For pedigree, see No. 29.

No. 33.—A calf not yet born; got by Symmetry, (B.)—Dam, Lilly; for pedigree see No. 29.

No. 34. *La-Annah*.—A white heifer, calved June, 1846; got by Archer, 3028, (A.)—Dam, Lillias, No. 29.

No. 35. *Cayuga*.—A white bull calf, calved July 1st, 1847; got by Symmetry, (B.)—Dam, Lillias, No. 29.

No. 36. *Lilac*.—A red and white heifer, calved June, 1845; got by Arrow, (C.)—Dam, Lois, No. 30. Bullied by Pontoosic, No. 26.

No. 37. *La-Juste*.—A white roan heifer, calved September, 1846; got by Symmetry, (B.)—Dam, Lois, No. 30.

No. 38.—A calf not yet born; got by Symmetry, (B.)—Dam, Lois, No. 30.

No. 39. *La-Mode*.—A white heifer, calved April, 1846; got by Mr. Vail's Meteor, (A. H. B.) 104.—Dam, Lalla Rookh, No. 31.

No. 40.—A calf not yet born; got by Symmetry, (B.)—Dam, Lalla Rookh, No. 31.

No. 41. *La-Maria*.—A heifer calf, white, got by Symmetry, (B.)—Dam, La-Quae, No. 32.

Pedigrees of Grade Cattle, which will be offered for sale after the sale of the above mentioned Cattle.

No. 1. *Admiral 2d*.—A red and white cow, calved in 1842; got by Archer, 3028, (A.)—Dam, Admiral 1st. Admiral 1st was bred by L. F. Jenkins, Esq., of Canandaigua, out of one his best Cows, by his bull Admiral.

No. 2. *Admiral 3d*.—A red and white cow, calved in 1843; got by Archer, 3028, (A.)—Dam, Admiral 1st.

No. 3. *Admiral 4th*.—A red and white calf, calved in 1846; got by Arrow, (C.)—Dam, Admiral 3d.

No. 4. *Admiral 5th*.—A white heifer calf; got by Symmetry, (B.)—Dam, Admiral 2d.

No. 5. *Snow Drop*.—A white heifer, calved in 1845; got by Archer, 3028, (A.)—Dam, a roan cow bred by myself, got by Copson, (C. H. B.) 3482, and out of an imported cow of the Tees Water variety.

No. 6. *Fanny Elster*.—A roan cow, calved in 1844; got by Arrow, (C.)—Dam, a roan cow, bred by H. S. Randall, Esq., out of a new Leicester cow.

No. 7. *Spot*.—A red and white heifer calf, got by Symmetry, (B.)—Dam, the same as No. 5.

SUPPLEMENT

The Pedigrees of the Bulls referred to in the Catalogue.

(A.) *Bull Archer*, 3028.—Was bred by Francis Rotch, Esq., of Butternuts, N. Y.; got by Rolla, (C. H. B.) 4991.—Dam, Adaliza, imported from the herd of Mr. Whittaker, by F. Rotch, Esq., got by Frederick, 1060; g. d., Adelia, by Orpheus, 473; g. g. d., Alfreda, by Alfred, 23; g. g. g. d., Strawberry, by Windsor, 698; g. g. g. g. d., Old Daisy, by Favorite, 252; g. g. g. g. g. d., by Punch, 531; g. g. g. g. g. g. d., by Hubback, 319.

(B.) *Bull Symmetry*.—Roan, was bred by Geo. Vail, Esq., of Troy, and got by his imported bull Duke of Wellington, (C. H. B.) 3654, and (A. H. B.) 55, from the herd of Thomas Bates, Esq., of Yorkshire, England.—Dam, Duchess, also imported from the same herd, by Duke of Northumberland, 1940; g. d. Nonsuch 2d, by Belvidere, 1706; g. g. d. Nonsuch, by Magnet, 2240; g. g. g. d. by Major, a son of Minor, 441; g. g. g. g. d. Old Sally, by a grandson of Favorite, 252; g. g. g. g. g. d. by Punch, 531; g. g. g. g. g. g. d. Hubback, 319.

N. B. Mr. Vail's Bull Meteor is of the same pedigree.

(C.) *Bull Arrow*.—Red and white, was bred by Thomas Hollis, Esq., of Gilbertsville, N. Y.; got by Bertram 2d, (C. H. B.) 3144, and (A. H. B.) 21.—Dam, Adeline, by Memnon, 2297; g. d. Adaliza, by Frederick, 1060; g. g. d. Adelia, by Orpheus, 473; g. g. g. d. Alfreda, by Alfred, 23; g. g. g. g. d. Strawberry, by Windsor, 698; g. g. g. g. g. d. Old Daisy, by Favorite, 252; g. g. g. g. g. g. d. by Punch, 531; g. g. g. g. g. g. g. d. by Hubback, 319.

(D.) *Bull Devonshire*.—Was bred in England, by Mr. Whittaker; got by Frederick, 1060.—Dam, Dulciana, by Enchanter, 244; g. d. Red Daisy, by Major, 398; g. g. d. by Windsor, 698; g. g. g. d. Old Daisy, by Favorite, 252; g. g. g. g. d. by Punch, 531; g. g. g. g. g. d. by Hubback, 319.

(E.) *Bull May Duke*.—Bred by Hon. Adam Ferguson, Watertown, Canada West, the property of L. F. Allen, Esq.; got by Agricola, 1614; Dam, Cherry, by Dunstan Castle, dam, by a son of St. Albans, 2584; g. g. d. by St. Albans, 2584; g. g. g. d. by Lawn-sheves, 365.

* Windle and Netherby were both imported by Messrs. LeRoy and Newbold, of Avon, N. Y.

MERINO SHEEP.

The following RAMS will be offered.

No.	Age.	Weight of fleece, 1847.	No.	Age.	Weight of fleece, 1847.
1	1	4 lbs. 8oz.	33	1	4
2	2	7	34	1	3
*3	7	5	35	1	6
*4	4	6	36	2	6
*5 not offered.			37	1	3
6 do.			38	1	4
7	1	7	39	1	4
8	1	5	40	1	3
9	1	4	41	1	3
10	1	2	42	8	6
11	1	4	43	1	3
12	1	3	44	1	3
13	1	4	45	2	8
14	1	4	46	2	6
*15	4	8	47 not offered.		
16	2	4	48	1	3
17	1	4	49	1	4
18	2	5	50	1	4
19	1	3	51	1	5
20	1	3	52	1	4
*21	3	9	53	1	4
22	1	4	54	1	4
*23	1	5	55	1	4
24	1	3	56	1	5
25	2	6	57	1	4
*26	7	8	58	1	4
27	1	4	59	2	5
28	1	5	60	1	4
29	1	3	61	1	4
30	2	7	62	2	5
31	1	4	63	2	6
*32	3	7	64	1	3

In addition, about forty Merino ram lambs will be sold. These rams are all of my own breeding, and were got by my rams Yankee, Pedlar, and Mr. Williams' Grandee, except those marked with a star. Yankee and Pedlar were bred by Mr. Blakeslee.

My Merinos consist of four families, viz: the Blakeslee family, the Yates family, the Jewett family, and the Marsh family.

The Blakeslee sheep were purchased of J. N. Blakeslee, of Waretown, Conn. This tribe of Merinos is well known all over the United States, and is unrivalled for their fineness of fleece, and general superior character. At present no pure Merinos stand so high; their fleeces, carcass, and constitution, being of the highest class. My bucks, Yankee and Pedlar are of this family, and were bred by Mr. Blakeslee.

Mr. Williams' Grandee was bred by D. C. Collins, Esq., of Hartford, Conn., and was got by Mr. Collins' imported buck Grandee, out of one of Mr. C.'s imported Rambouillet ewes. These sheep were imported by Mr. C. from the far-famed royal flock of Merinos owned by the French government, and kept and bred at Rambouillet. These are now widely known throughout the U. S. Mr. Taintor, of Hartford, Conn., who last year imported some sheep of the same blood, has sold ram lambs at prices reaching as high as \$200 per head.

I shall also offer sixty Merino ewes. They are of the same families as the rams, and of the same character. Also 30 grade Merino ewes.

I have taken six clips of wool, and four of them have been sold at 40 cts., the one of 1846 for 39, delivered at my own house, and the clip of 1847 unsold. The clip of 1846 averaged over 4 lbs. per head; that of 1847 averaged 4 lbs. 6 oz per head, all clean washed wool.

Samples in whole fleeces, may be seen at the State Agricultural Rooms, Albany, and A. B. Allen's Ag. Store, 157 Water-st., New-York.

SOUTH DOWN RAMS.

Fifteen to twenty-five South Down Rams and Ewes will also be offered. They are derived from the celebrated flocks of Elman, Grantham, and Webb, the first and most distinguished breeders of South Down sheep in England.

Terms of the sale, cash, or approved endorsed notes, payable at the Bank of Auburn at three months, with interest.

Auburn, July 1st, 1847.

J. M. SHERWOOD.

PROUTY & MEARS' PLOWS.

THESE celebrated plows are warranted, and the money will be returned for every plow that does not suit. Hon. Dixon H. Lewis, Senator from Alabama, said, at the Farmer's Club in New-York, "My corn crop declined from 70 bushels per acre to 40; I sent north and got one of Prouty's plows, and now have the best crop within 50 miles."

The subscriber is sole agent, and offers for sale an assortment of the above plows, as also a general stock of agricultural implements.

SAMUEL C. HILLS, 189 Water-street, N. Y.

New-York, August 1, 1847—3t.

A VALUABLE FARM IS FOR SALE

IN Windsor, Vt., containing upwards of 400 acres of land, comprising tillage, grazing, and woodland in due proportion. It is situated on the banks of the Connecticut river, near the village of Windsor, and also near the eastern terminus of the Vermont Central railroad, and is well provided with suitable buildings, among which is a beautiful English cottage, recently built. The farm is in a fine state of cultivation, and in point of capacity for improvement, and convenience, and beauty of situation, is unsurpassed in its own beautiful valley.

SAM'L H. PRICE, Agent.

Windsor, Vt., Aug. 1, 1847.—3t.

IDE'S PATENT WHEEL CULTIVATOR AND WIRE GRASS PLOW.

(An engraving of this implement will be given next month.)

THE farming public are hereby informed that letters patent have been taken out by the subscriber for his recent great improvements in the construction and manufacture of field CULTIVATORS; an improvement so great as to entirely revolutionize the whole system of farming by reducing the expense of cultivation one-half or more. Wherever they have been introduced they have met the decided approbation of farmers, as the following certificates and testimonials from the intelligent and practical farmers, whose names are attached, abundantly show.

CERTIFICATES.

"This may certify that we, the subscribers, have seen and used the Patent Wheel Cultivator, invented by Nathan Ide, of Shelby, Orleans Co., New-York, and believe it to be decidedly the best machine ever invented for pulverizing the ground and facilitating the labor of the farmer

James H. Hedley,

Gardner Berry,

Enos Newman,

James P. Anderson.

Shelby, Orleans Co., April 23, 1845.

Charles L. Flint,

Henry Wadsworth,

Asahel Wadsworth,

H. N. Andrus.

Livingston County.

The undersigned have just witnessed the operation of Nathan Ide's Cultivator, and we are free to say that we regard it as a decided improvement on all the implements of the kind now in use for preparing land for wheat and other crops.

Daniel Lee, Ed. Gen. Farmer,

William Buell,

Rawson Harmon,

Alexander Williams,

William Pixley,

Joseph Williams,

Peter Sheffer, Jr.,

John M. Cutler.

Monroe Co., July 3, 1846.

After these ample testimonials the subscriber deems it unnecessary to enter into a long and elaborate description of the implement, with its various points and modes of operation.

The wheels are 32 inches in diameter—are capable of being raised or lowered at pleasure. The teeth are 14 inches long, with substantial braces behind each tooth.

The advantages of this Cultivator are manifold. 1. By means of the wheels the machine runs easy, and the teeth go to a uniform depth. 2. The teeth are so long that the machine never chokes. 3. The tongue guides the implement with accuracy and precision. And 4. At seed time, by going the last time across the lands, small channels or ducts are formed leading into the main furrows, which effectually take off the surplus moisture, and thus render the wheat less liable to be winter killed.

NATHAN IDE, Patentee.

Shelby, Orleans Co., N. Y., Aug. 1, 1847.—1t.

STUART'S PATENT SELF CLEANER THRESHING MACHINE.

WE challenge any other kind of self cleaner threshing machine in the United States, or any other country, to compete with the above machine, for simplicity and cheapness of construction, for easy and still running, fast business, cleaning grain well, saving hay seed, &c. The above machine weighs about 1,000 lbs., is easily placed on a common wagon, and works on the same, by merely blocking the hind wheels, either in the barn or field. Said machine is constructed so as to carry off the straw and chaff, either in the yard, to a stack-pen, or on a wagon, or may be carried over head in the same barn in which the machine is working. It may be elevated high or low at pleasure, with perfect ease. The elevator, not only carries off the straw and chaff, but prevents all head winds from interfering with the fanning mill, also obviates chaff and dirt from blowing back into the grain, which is not the case with other kinds. Read the subjoined certificates and be convinced.

RECOMMENDATIONS.

To all to whom this may concern.

We the undersigned, inhabitants of the towns of Veteran and Catharine, in the county of Chemung, and state of New-York, do hereby certify that we have used, and seen in use, Stuart's Patent Self Cleaner Threshing Machine, and would recommend it as being the best machine for threshing and cleaning grain we ever saw; and in consequence of the simplicity and cheapness of its construction, utility, durability, and ease and stillness in running, together with its illiability to get out of order, and the fastness of doing work, we would most cheerfully recommend the above machine to those who build, use, and employ, as being the best machine now before the public, with which we have become acquainted.

Ephraim Kembull,

John T. Worden,

Alonzo Banks,

E. M. Hewitt,

Alanson Bulkley,

Albert Brown,

Jackson G. Brown,

Manly Palmer,

Garry Stone,

Minor L. Sherwood,

Isaac Brisco,

Aris Haskin,

William Gould,

Lewis Hewitt,

C. Banks,

Jeremiah Kendall,

Isaiah D. Lee,

Henry Bates,

George Patchin,

D. Daniee,

P. Vangorder.

Nathan Brisco,

John I. Benson,

The subscriber is now prepared to travel through the United States, with a model and the patent, and all papers pertaining to the above business, for the purpose of selling rights of counties, states, &c., anywhere in the United States, and on good contracts will build and put in operation full power machines for exhibition. Certificates of the above description can be obtained in great abundance, but the undersigned deems it unnecessary, as he will be found otherwise prepared to convince the public.

S. S. CURTIS, Sole Agent for the U. S.

Catharine, Chemung Co., N. Y., Aug. 1, 1847.—1t*

SHORT-HORNS FOR SALE.

THE subscriber has on his farm a few spring calves, (bulls and heifers,) which he will dispose of when 3 to 4 months old, at \$75 to \$100 a piece.

These animals were all got by his premium bull Meteor, a descendant of his imported bull Duke of Wellington, and heifer Duchess, both of which latter animals he imported from the celebrated Short-Horn herd of Thomas Bates, Esq., Yorkshire, both possessing the blood of his Duchess tribe. The calves offered for sale, are from good milking Short-Horn cows, and having through the bulls Duke of Wellington and Meteor, some half, and others three-quarters of the blood of the Bates bulls, they will be valuable to such as wish to improve their herds.

GEO. VAIL.

Troy, June 16, 1847.—2t.

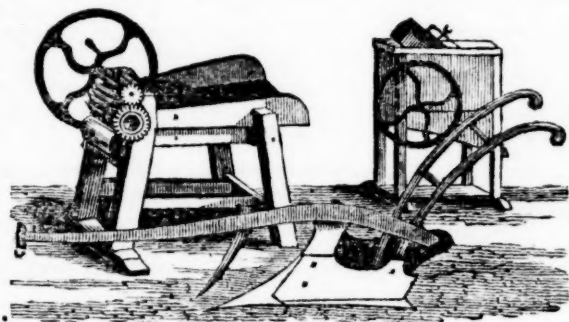
KINDERHOOK WOOL DEPOT.

THIS enterprise has been in successful operation for the past two years, and has fully met the expectations of the wool-growers, who have been its patrons and projectors. It will be continued the present year, conducted as heretofore. The subscriber will be prepared to receive wool as soon after shearing as may be convenient for the growers to deliver it. The fleeces will be thrown into sorts according to *quality and condition*. Those who desire it can have their clip kept separate, and sold when ordered. A discrimination will be made between wool in good or bad condition. Sales will be made for cash, and the owners can rely on prompt returns. The charges for receiving, storing, sorting, and selling, will be one cent per lb. and insurance. Liberal advances in cash made on the usual terms. Sacks will be forwarded to those who wish, by their paying the transportation and 12½ cents each for their use, or if furnished by the owner of the wool, will be returned, or sold at their value, as he may direct.

Reference can be had to Dr. J. P. Beckman, Kinderhook, D. S. Curtis, Canaan, C. W. Hull, New Lebanon, Col. Co., J. B. Nott, Esq., Albany, D. Rogers, Hoosick, Rens. Co., C. H. Richmond, Esq., Aurora, Cayuga Co., Col. J. Murdock, Wheatland, Monroe Co., N. Y.

H. BLANCHARD.

Kinderhook, June 1, 1847.—3t.



JOHN MAYHER & CO.

U. STATES AGRICULTURAL WAREHOUSE,
No. 195 Front-street, (near Fulton,) New-York.

Foundry and Machine Shop 502 and 504 Water-st.

THE subscribers respectfully invite the attention of Merchants and Dealers in AGRICULTURAL IMPLEMENTS to the superior assortment of goods which they manufacture, embracing Plows and Castings of the most approved kinds in use, and possessing all the latest improvements in style, workmanship, and material, among which are the following articles, that can be seen at their warehouse:

Pitts' Corn and Cob Crusher,	Minor & Horton's Plows, all k'ds;
Price, \$40	Worcester Eagle do.
Sinclair's do.—hand or horse,	\$30 Mayher & Co.'s Eagle improved
Fitzgerald's Patent Burr Stone	Plows;
Corn Mill,	\$60 Mayher & Co.'s much approved
Sinclair's Cast Plate Corn	Plows;
Mill,	\$40 Langdon's Horse Hoe Plows;
Swift's Corn, Coffee, and	Castings to fit all kinds of Plows
Drug Mill,	\$6 to \$8 in use;
Hovey's far-famed Hay, Straw,	Mayher & Co.'s 2 Horse Power,
and Stalk Cutter;	Price, \$55
Sinclair's Hay, Straw, and Stalk	do. do. 4 do. \$75
Cutter;	do. do. 2 Thresher, \$25
Greene's do. do. do.	do. do. 4 do. \$30
Mayher & Co.'s do. do.	John Mayher & Co.'s First Pre-
Langdon's do. do. do.	mium Corn Sheller;
I. T. Grant & Co.'s Premium	Burrall's Corn Sheller;
Fanning Mill;	Warren's do. do.
J. Mayher & Co.'s do. do.	Sinclair's Corn Sheller and Husk-
Boston Centre Draught Premium	er;
Plows,	Pitt's Horse Power and Thresh-
Bergen's Self-Sharpening Plows;	ing Machine;
Dutcher's Plows of all kinds;	E. Whitman's Jr., Thresher and
Hitchcock's do. do.	Separator;
Freeborn's do. do.	Subsoil Plows of different kinds.

Cultivators, Wheelbarrows, Canal Barrows, Store Trucks, Horse and Ox Carts, Mule Wagons, Ox-Yokes and Bows, Hames, Trace and Ox Chains, Road Scrapers, Ground Augurs, Shovels, Spades, Pick Axes, Hay and Manure Forks, Rakes, Hoes, Scythes, Seythe Snathes, Grain Cradles, Crow Bars, &c., &c., all of which will be sold as cheap as they can be bought at any other store in the city, and are warranted.

Gin Gear, Segments, Rag Wheels, &c.

Castings of all kinds made to order.

March 1, 1847.—1t.

SPANISH MERINO SHEEP.

FOR sale a few choice Merino sheep—bucks, and ewes—of undoubted purity of blood, and a quality that will give satisfaction to purchasers. They can be sent west by canal, at the subscriber's risk.

R. J. JONES.

Cornwall, Vt., June 1, 1847.—1t.

FOR SALE.

A FEW very superior Paular Merino sheep—very heavy shearers, and of fine quality; 25 yearling bucks, large and likely, of long staple, and very thick wool. Also, from 50 to 75 ewes, from one to four years old, that are nice, and cannot be matched in the state. For further particulars, inquire of the subscriber a Newport, R. Island.

JOSEPH I. BAILEY.

July 1—3t.

DRAINING TILE,

MADE, and for sale by

JAMES CHAPMAN.

Enfield, Ct., July 1, 1847.—3t.

ONE OF THE GREATEST INVENTIONS OF THE AGE.

KEPHART'S PATENT FRUIT AND VEGETABLE PRESERVER—by the use of which Fruits, Vegetables, Butter, Eggs, Bacon, &c., can be had at all seasons of the year—possessing all their natural juices and flavor.

The undersigned, having purchased the above patent right for the United States and Territories, excepting the states of New-Jersey, Delaware, Maryland, and the cities of New-York and St. Louis, invite the attention of the public to an examination of the scientific principles upon which the above invention is based, as well as its practical utility. For a particular description of the Preserver, see the Cultivator for July, 1847, page 217. They offer for sale patent rights for the construction and use of the Preserver, by states, cities, counties, towns, or individual rights, upon terms that will induce all interested in the growth or sale of fruit and vegetables; also dealers in butter, eggs, or in the curing and preservation of meats, to purchase rights and construct houses.

All desirous of a farther knowledge of the operations of the preserver, can see one in operation, either by calling upon P. Kephart, Western Hotel, Baltimore, Md., who is our authorized agent, or upon the subscribers, Coats-st. Wharf, near Fairmount, Phila.

All communications will receive prompt attention if addressed either to P. Kephart, Baltimore Md., or FLACK, THOMPSON & BROTHER, Spring Garden P. O., Philadelphia, Pa.

July 1—1t.

WILCOX'S IMPROVED GRAIN CRADLES.

One of the best, lightest, and cheapest in use—with warrant ed scythe, complete, at \$3.35.

Also, I. T. Grant's Celebrated Premium Cradles, constantly on hand, and for sale at the Albany Agricultural Warehouse.

L. TUCKER.

July 1.

I. T. GRANT & CO'S PATENT PREMIUM FAN MILLS.

THE subscribers, manufacturers of these celebrated mills, having enlarged their manufacturing establishment, hope to be enabled hereafter to supply promptly the rapidly increasing demand for that article. These mills have been repeatedly tried, and the principle upon which they operate thoroughly examined and tested by committees appointed by the State Agricultural Society, and in every instance have been declared greatly superior to any that have come in competition with them. They have taken the first premium at four of the New-York State Agricultural Fairs, (being all at which they have been exhibited,) and at the State Fairs in Pennsylvania and Maryland. Our mills took the first premium, at the Fair of the American Institute in 1846, and they received the highest consideration at the great National Fair, recently held at the city of Washington. Wherever they have been exhibited, they have received the unqualified commendation of agriculturists, and are believed to be the only mills ever invented or manufactured, that will chaff and screen wheat perfectly clean (and at the rate of one bushel per minute) at one operation, taking out the chaff, cockle and smut at the same time. They will also thoroughly clean all other kinds of grains and seeds by running it through once. We manufacture four sizes, varying in price from \$21 for No. 1, to \$27 for No. 4, and have no hesitation in warranting them superior to any thing of the kind now in use.

We also manufacture very superior Grain Cradles, which have taken the first premium wherever exhibited.

Our Fan Mills and Cradles are for sale at factory prices at the following places:

John Mayher & Co., 195 Front-st., New-York.
E. Whitman, 55 Light-st., Baltimore.
Denslow & Webster, Savannah, Georgia.
Fitzhugh Coyle, Washington City.
Baggs & Parsons, Springfield, Mass.
Pierce, Sweet & Co., Burlington, Vt.
J. W. Howes, Montpelier, Vt.
Luther Tucker, 10 & 12 Green-st., Albany, N.Y.
H. Warren, Troy.

J. S. & J. Brown, Newburgh.

Orders thankfully received and promptly attended to, and all goods delivered at Troy, N. Y., free of charge.

I. T. GRANT & Co

Junction P. O., Renss. Co., N. Y., July 1—1t.

CONTENTS OF THIS NUMBER.

COMMUNICATIONS.

On Breeding Horses, by EQUUS,	233
Michigan as an Agricultural State, by B. HUBBARD,	237
Fence Posts, by GEO. HAPGOOD—Thorough Preparation of the Soil for Crops, by M. GOLDSBOROUGH—Draining, Poultry, Hemlock offensive to Vermin, Liming Land, and Subsoil Plowing, by A. M.,	239
Influence of the Rhubarb Plant in producing Gravel, by J. G. C.—Fixing Ammonia, by S. W. JOHNSON,	240
Osage Orange for Hedges, by G. S. and D. MINIS—Sheep Husbandry in Virginia, by AUGUSTA,	241
Proper Construction of Lightning Rods, by W.—Measuring Hay, by A. SUBSCRIBER,	242
Hydraulic Ram, by E. H. WEEKS—Horse Rake, by H.—In- fluence of the Barberry, and the Doctrine of Transmuta- tion, by A. SUBSCRIBER—Aroma of Plants, by D. T. BROWN—Laborer's Cottage, and Sheep Racks, by Road Making, by A. D.—Successful Steep for Seeds, by BAILEY,	243
Glass Milk Pans, by T. G.—Premium offered, by R. W., Jr., To Preserve Tomatoes for Winter Use, by A.—Making Coffee, by H.,	245
Farming Operations of the German Ebenezer Society, by H. A. P.,	247
What Manure does this Field need? by Prof. E. N. HORS- FORD,	248
Farm Laborers of Great Britain, by H.,	250
Protection of Fruit, by J.,	251

EDITORIAL.

Influence of Electricity—Large Corn,	234
Dairy Management of Mr. B. H. HALL—Dairy Statistics,	235
Proportion of American Population engaged in Agriculture } —Salt not a Preventive of Potato Disease,	236
Use of Fish for Manure,	240
Canada Thistles destroyed by Plowing,	242
How much Pork will a bushel of Corn make?—Big-Head in Horses—"The West,"	244
Amount of Gluten in Wheat,	245
Ag. Societies—Culture of Cereal Grains in Cold Climates— Painting Brick Buildings—Improvement in Cattle,	246
The Cultivator—Grant's Fanning Mill—Mott's Portable Ag. Furnace—Lime as a Manure,	249
Nutrient in Different Substances—Pumpkin Crop—Dura- bility of Manure,	250
Sketches of Farming in Western New-York,	252
Albany and Rensselaer Hort. Society—Hort. Exhibition at Aurora—Blight in Fruit Trees—Salt for Plum Trees,	255
Size of Different Varieties of Cherries,	256
To Correspondents—Monthly Notices, &c.,	257
Answers to Inquiries,	258
New Publications—The Markets, &c.,	259

ILLUSTRATIONS.

Fig. 56.—The Cultivator,	249
Fig. 57.—Grant's Fanning Mill,	249
Fig. 58.—Mott's Portable Furnace,	249

MERINO SHEEP FOR SALE.

THE flock of sheep raised on the Oaklands farm, has increased beyond the limits proportioned to the number of acres. The subscriber therefore offers to sell 150 ewes and wethers. They are well worth the attention of farmers desirous to increase or improve their flocks. A few yearling bucks may be had also. The flock may be seen on the farm in Fayette, Seneca Co., near the outlet of Seneca lake. All letters addressed to the subscriber, at the Geneva post-office, post paid, shall have attention. J. DELAFIELD.
August 1, 1847.—It.*

MONTGOLFIER'S HYDRAULIC RAM.

A SIMPLE and effective machine for forcing a portion of any brook or spring over any required distance and elevation, where a proportionate fall can be obtained.

It is used for supplying farm-houses, factories, villages, railroad stations, &c., with running water.

The simplicity of the operations of this machine, proves at once its effectiveness; as also the simplicity of the Machine itself shows its durability as well as the very small amount of attention and repairs it will require.

The subscribers are prepared to make and put up Rams of all sizes and kinds, (which they will warrant in every respect,) with the accompanying pipe, reservoirs, baths, water-closets, fountains, &c., &c., when required.

Persons wishing Rams sent to them, by measuring the amount of water their brook or spring affords per minute, the head or fall they can procure, the elevation to be overcome, and distance to be conveyed, can have the proper Ram and pipe sent them, with directions for putting it up. If the supply be unlimited, the amount of water required should be stated.

The expense of a ram and necessary pipe is so small as to be within the reach of every one; in most cases being less than that of a well and pump. Manufactured and sold by

FARNHAM & BROWN, No. 194½ Market-St., Philad'a. N. B. They have removed from Ninth and Green-Streets, to 194½ Market-street, at the Agricultural Warehouse of D. O. Prouty, a few doors below Sixth, lower side, where orders can be left. One of the Rams is to be seen in the yard in daily operation.

Price of 1½ inch Rams, \$12; 1½; 15; 1½, with large air chamber, \$20.

August 1, 1847.

ALBANY AG. WAREHOUSE AND SEED STORE.

A DESCRIPTIVE CATALOGUE of the numerous list of Agricultural Machines, Implements, Tools, Seeds, &c., for sale at the Albany Ag. Warehouse and Seed Store, illustrated with about fifty engravings, will soon be ready for distribution. It may be had gratis on application at the store, No. 10 Green st., or on application by mail, post-paid.

LUTHER TUCKER.

For all kinds of implements required by the farmer or gardener, such as Horse Powers, Threshing Machines, Fan Mills, Corn Mills, Corn and Cob Crushers, Hay and Straw Cutters, Plows of all kinds, Horse Rakes, Cradles, Churns, Cheese Presses, Cultivators, Harrows, Shovels, Hoes, Forks, Scythes, &c., &c., apply at the above establishment.

August 1, 1847.

SEED WHEAT.

THE celebrated White Flint, Hutchinson, Red-Chaff, and Blue Stem wheat for sale. The above are winter varieties, and are considered the best now grown in New-York.

Seed rye, also, and Buckwheat, together with a general assortment of field seeds of various kinds, on hand.

A. B. ALLEN & Co., 187 Water-st., N. Y.

August 1—2t.

GRASS SEEDS.

TIMOTHY, Red-top, Rye-grass, and Blue Grass, Furze Top, Red and White Clover Seed, of the best quality, for sale by

A. B. ALLEN & Co., 187 Water-st., N. Y.

August 1, 1847.—2t.

BURR'S OHIO SEEDLING STRAWBERRIES.

THE following choice varieties of new Seedling Strawberries are now offered for sale, and confidently recommended to the public as superior to any heretofore cultivated.

1. *Ohio Mammoth*.—Fruit very large, the most uniformly large strawberry known; rather long or conical, pale red or flesh color; flavor sweet and excellent; foliage large, plants very hardy, vigorous and productive; flowers perfect or staminate.

2. *Burr's New Pine*.—Berries large, light or pale red, and possess a very high aromatic, sweet, and delicious flavor; very early; plants perfectly hardy, vigorous, and uncommonly productive—pistillate—unquestionably the very best strawberry cultivated.

3. *Rival Hudson*.—Fruit dark and shining red, resembling the Hudson or Cincinnati, except the stem and fruit are both longer; flavor high rich, and excellent; plants perfectly hardy, a profuse bearer—pistillate.

4. *Columbus*.—A beautiful, large dark colored fruit, nearly round, possessing a rich and sweet flavor, plants very hardy, and uncommonly prolific—pistillate.

5. *Scarlet Melting*.—A handsome dark colored fruit, rather long, with a neck. Possessing a rich and pleasant flavor, flesh very tender: the plants are hardy—grow rapidly, and bear very abundantly—pistillate.

6. *Burr's Old Seedling*.—Undoubtedly the best known for impregnating other varieties. Flowers staminate, blooming early and continuing late, and always producing [here] a large crop of large, handsome, and most delicious fruit.

Several additional varieties will be found described in a report on this subject, by a committee of the Columbus Horticultural Society, published in the papers; plants of which can be furnished to a limited number.

Prices of Plants.—Nos. 1 and 2, \$2.50 per dozen; nos. 3, 4, and 5, \$1 per dozen; No. 6, 50 cts. per dozen—\$2 per 100.

Plants of Hovey's Seedling, Hudson, [of Cincinnati], and several other old standard sorts, can be supplied if desired, at same price as No. 6.

Boxes of plants can be sent with speed and safety by express or stages in almost every direction from Columbus. No charge will be made for boxes or packing when \$5 worth or more plants are ordered.

JOHN BURR.

Columbus, O., Aug. 1, 1847.—It.

THE CULTIVATOR

Is published on the first of each month, at Albany, N. Y., by

LUTHER TUCKER, PROPRIETOR.

LUTHER TUCKER & SANFORD HOWARD, Editors.

\$1 per ann.—7 copies for \$5—15 copies for \$10.

Payable always in advance

PUBLISHING AGENTS IN

NEW-YORK—M. H. Newman & Co., 199 Broadway;
BOSTON—Joseph Breck & Co., 52 North-Market-Street
PHILADELPHIA—G. B. Zieber & Co., Booksellers;

Of whom single numbers, or complete sets of the back volumes, can always be obtained.

ADVERTISEMENTS inserted in the Cultivator, at the rate of \$1.00 per 100 words, for each insertion.

Two editions of The Cultivator are issued—one without covers and unstitched, which, by the decision of the Postmaster General, is subject to newspaper postage only—the other, stitched in printed covers, the postage of which would be 3½ cents per number. The covered edition is never sent by mail, except particularly requested.